Supreme Court U.S.
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No. 01-706

In the
Supreme Court of the United States

Rex R. Sprietsma, Adm'r of the Estate of
Jeanne Sprietsma, Deceased,

Petitioner,

v.

Mercury Marine, a Division of Brunswick Corporation,

Respondent.

On Petition for a Writ of Certiorari to the Supreme Court of Illinois

JOINT APPENDIX

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DEPARTMENT OF TRANSPORTATION

Coast Guard
[CGD-88-073]
National Boating Safety Advisory Council Subcommittee on Propeller Guards; Meeting

Pursuant to section 10(a) of the Federal Advisory Committee Act (Pub. L. 92-463; 5 U.S.C. App. 1), notice is hereby given of a meeting of the National Boating Safety advisory Council's Subcommittee on Propeller Guards to be held on Thursday and Friday, September 22 and 23, 1988, at the Boston Whaler Company, 1149 Hingham Street, Rockland, Massachusetts, beginning at 8:30 a.m. on both days and ending at 5:00 p.m. on Thursday and at 12:00 noon on Friday. The agenda for the meeting will be as follows:

1. To discuss the issue of propeller guards on recreational watercraft relating to personal safety and performance factors.

The Meeting is open to the public. Persons wishing to present oral statements at the meeting should so notify the Executive Director of the council no later than the day before the meeting. Any member of the public may present a written statement to the Council at any time. Additional information may be obtained from Captain W.S. Griswold, Executive Director, National Boating Safety Advisory Council, U.S. Coast Guard, (G-NAB), Washington, D. C. 20593-0001, or by calling (202) 267-0997.

Dated: August 19, 1988.

Robert T. Nelson,
Rear Admiral, U.S. Coast Guard, Chief, Office of Navigation Safety and Waterway Services
[FR Doc. 88-19599 Filed 8-29-88; 8:45 am]
BILLING CODE 910-14-M

53 *Federal Register* 43069
(October 25, 1988)

Coast Guard
[CGD-88-093]
National Boating Safety Advisory Council; Meeting

Pursuant to section 10(a) of the Federal Advisory Committee Act (Pub. L. 92-463; 5 U.S.C. App. 1), notice is hereby given of a meeting of the National Boating Safety Advisory Council to be held on Tuesday and Wednesday, November 15 & 16, 1988 at the Sheraton Hotel & Marina, 1 Bicentennial Park, New Bern, North Carolina, beginning at 9:00 a.m. and ending at 4:00 p.m. on both days. The agenda for the meeting will be as follows:

1. Introduction and Swearing-in of new Council Members.

2. Review of action taken at the 41st meeting of the Council.

3. Members' items.

4. Executive Director's report.

5. Consumer Education Subcommittee report.

6. Propeller Guard Subcommittee report.

7. Presentation of Marine Underwriters.

8. Presentation of vertical sector sidelights for unmanned barges.

9. Mandatory Education Subcommittee report.

10. Report of Boating Education Seminar in Louisiana.

11. Report of the Personal Flotation Device (PFD) Subcommittee.

12. Presentation of definition of "Passenger" on recreational boats.

13. Presentation by Accident Reporting Subcommittee.

14. Final report of Personal Flotation Device (PFD) pamphlet project.

15. Presentation of the work of Marine Surveyors.

16. Update on Commercial Towing.

17. Report of Universal Registration Subcommittee.

18. Report on the National Association of State Boating Law Administrators' (NASBLA) Conference.

19. Presentation on Visual Identification for Public service vessels.

20. Remarks by Chief, Office of Navigation Safety and Waterway Services.

21. Reply to members' items.

22. Chairman's session.

Attendance is open to the interested public. With advance notice to the Chairman, members of the public may present oral statements at the meeting. Persons withing [sic] to present oral statements should so notify the Executive Director no later than the day before the meeting. Any member of the public may present a written statement to the Council at any time. Additional information may be obtained from Captain William S. Grisworld [sic], Executive Director, National Boating Safety Advisory Council, U.S. Coast Guard, (G-NAB), Washingotn [sic], DC 20593-0001, or by calling (202) 267-0997.

Issued in Washington, D.C., October 17, 1988.

Robert T. Nelson,
Rear Admiral, U.S. Coast Guard, Chief, Office of Navigation Safety and Waterway Services.
[FR Doc. 88-24547 Filed 10-24-88; 8:45 am]
BILLING CODE 4910-14-M

[CGD-88-091]
National Boating Safety Advisory Council Subcommittee on Accident Reporting; Meeting

Pursuant to section 10(a) of the Federal Advisory Committee Act (Pub. L. 92-463; 5 U.S.C. App. 1), notice is hereby given of a meeting of the National Boating Safety

Advisory Council's Subcommittee on Accident Reporting to be held on Monday, November 14, 1988 at the Sheraton Hotel & Marina, 1 Bicentennial Park, New Bern, North Carolina, beginning at 3:00 p.m. and ending at 5:00 p.m. The agenda for the meeting will be as follows:

1. Seek broad based input and discuss available information and potential new sources of data.

Attendance is open to the interested public. With advance notice to the Chairman, members of the public may present oral statements at the meeting. Persons wishing to present oral statements should so notify the Executive Director no later than the day before the meeting. Any member of the public may present a written statement to the Council at any time. Additional information may be obtained from Captain William S. Griswold, Executive Director, National Boating Safety Advisory Council, U.S. Coast Guard (G-NAB), Washington, DC 20593-0001, or by calling (202) 267-0997.

Issued in Washington, D.C., October 17, 1988.

Robert T. Nelson,
Rear Admiral, U.S. Coast Guard, Chief, Office of Navigation Safety and Waterway Services.
[FR Doc. 88-24548 Filed 10-25-88; 8:45 am]
BILLING CODE 4910-14-M

[CGD-88-088]
National Boating Safety Advisory Council Subcommittee on Mandatory Education; Meeting

Pursuant to section 10(a) of the Federal Advisory Committee Act (Pub. L. 92-463; 5 U.S.C. App. 1), notice is hereby given of a meeting of the National Boating Safety Advisory Council's Subcommittee on Mandatory Education to be held on Monday, November 14, 1988 at the Sheraton Hotel & Marina, 1 Bicentennial Park, New Bern, North Carolina, beginning at 10:00 a.m. and ending at 4:00 p.m. The agenda for the meeting will be as follows:

1. Review materials and formulate a report and recommendation to the Council on mandatory education.

Attendance is open to the interested public. With advance notice to the Chairman, members of the public may present oral statements at the meeting. Persons wishing to present oral statements should so notify the Executive Director no later than the day before the meeting. Any member of the public may present a written statement to the Council at any time. Additional information may be obtained from Captain William S. Griswold, Executive Director, National Boating Safety Advisory Council, U.S. Coast Guard (G-NAB), Washington, DC 20593-0001, or by calling (202) 267-0997.

Issued in Washington, D.C., October 17, 1988.

Robert T. Nelson,
Rear Admiral, U.S. Coast Guard, Chief, Office of Navigation Safety and Waterway Services.
[FR Doc. 88-24549 Filed 10-24-88; 8:45 am]
BILLING CODE 4910-14-M

[CDG-88-092]
National Boating Safety Advisory Council Subcommittee on Personal Flotation Devices (PFDs); Meeting

Pursuant to section 10(a) of the Federal Advisory Committee Act (Pub. L. 92-463; 5 U.S.C. App. 1), notice is hereby given of a meeting of the National Boating Safety Advisory Council's Subcommittee on Personal Flotation Devices to be held on Monday, November 14, 1988 at the Sheraton Hotel & Marina, 1 Bicentennial Park, New Bern, North Carolina, beginning at 3:00 p.m. and ending at 5:00 p.m. The agenda for the meeting will be as follows:

1. Review materials and replies received from foreign administrations regarding wearing PFDs and standards for PFDs.

Attendance is open to the interested public. With advance notice to the Chairman, members of the public may present oral statements at the meeting. Persons wishing to present oral statements should so notify the Executive Director no later than the day before the meeting. Any member of the public may present a written statement to the Council at any time. Additional information may be obtained from Captain William S. Griswold, Executive Director, National Boating Safety Advisory Council, U.S. Coast Guard (G-NAB), Washington, DC 20593-0001, or by calling (202) 267-0997.

Issued in Washington, D.C., October 17, 1988.

Robert T. Nelson,
Rear Admiral, U.S. Coast Guard, Chief, Office of Navigation Safety and Waterway Services.
[FR Doc. 88-24550 Filed 10-24-88; 8:45 am]
BILLING CODE 4910-14-M

[CDG-88-089]
National Boating Safety Advisory Council Subcommittee on Propeller Guards; Meeting

Pursuant to section 10(a) of the Federal Advisory Committee Act (Pub. L. 92-463; 5 U.S.C. App. 1), notice is hereby given of a meeting of the National Boating Safety Advisory Council's Subcommittee on Propeller Guards to be held on Monday, November 14, 1988 at the Sheraton Hotel & Marina, 1 Bicentennial Park, New Bern, North Carolina, beginning at 9:00 a.m. and ending at 4:00 p.m. The agenda for the meeting will be as follows:

1. Discuss the pros and cons of Propeller Guards.

Attendance is open to the interested public. With advance notice to the Chairman, members of the public may present oral statements at the meeting. Persons wishing to present oral statements should so notify the Executive Director no later than the day before the meeting. Any member of the public may present a written statement to the Council at any time. Additional information may be obtained from Captain William S. Griswold, Executive Director, National Boating Safety Advisory Council, U.S. Coast Guard (G-NAB), Washington, DC 20593-0001, or by calling (202) 267-0997.

Issued in Washington, D.C., October 17, 1988.

Robert T. Nelson,
Rear Admiral, U.S. Coast Guard, Chief, Office of Navigation Safety and Waterway Services.
[FR Doc. 88-24551 Filed 10-24-88; 8:45 am]
BILLING CODE 4910-14-M

[CDG-88-087]
National Boating Safety Advisory Council Subcommittee on Universal Registration; Meeting

Pursuant to section 10(a) of the Federal Advisory Committee Act (Pub. L. 92-463; 5 U.S.C. App. 1), notice is hereby given of a meeting of the National Boating Safety Advisory Council's Subcommittee on Universal Registration to be held on Monday, November 14, 1988 at the Sheraton Hotel & Marina, 1 Bicentennial Park, New Bern, North Carolina, beginning at 3:00 p.m. and ending at 5:00 p.m. The agenda for the meeting will be as follows:

1. Review materials and formulate a report and recommendation to the Council on universal registration.

Attendance is open to the interested public. With advance notice to the Chairman, members of the public may present oral statements at the meeting. Persons wishing to present oral statements should so notify the Executive Director no later than the day before the meeting. Any member of the public may present a written statement to the Council at any time. Additional information may be obtained from Captain William

S. Griswold, Executive Director, National Boating Safety Advisory Council, U.S. Coast Guard (G-NAB), Washington, DC 20593-0001, or by calling (202) 267-0997.

Issued in Washington, D.C., October 17, 1988.

Robert T. Nelson,
Rear Admiral, U.S. Coast Guard, Chief, Office of Navigation Safety and Waterway Services.
[FR Doc. 88-24552 Filed 10-24-88; 8:45 a.m.]
BILLING CODE 4910-14-M

The National Boating Safety Advisory Council

REPORT
OF THE
PROPELLER GUARD
SUBCOMMITTEE

Presented
November 7,1989

CAPT. James E. Getz, Chairman, State Member
Mr. Donald J. Kerlin, U.S.C.G. Representative
Mr. Richard H. Lincoln, Industry Member
Mr. William D. Selden, Public Member
Mr. Herman T. VanMell, Public Member

REPORT OF THE PROPELLER GUARD
SUBCOMMITTEE OF THE
NATIONAL BOATING SAFETY ADVISORY COUNCIL

I. INTRODUCTION: THE SUBCOMMITTEE AND ITS PURPOSE

At the request of the U.S. Coast Guard, the National Boating Safety Advisory Council (NBSAC) on May 11, 1988, appointed a subcommittee to consider, review and assess available data concerning the nature and incidence of recreational boating accidents in which persons in the water are struck by propellers. Feasibility of some form of mechanical guard or other action to prevent such contact was to be

examined. A copy of the charge to the Propeller Guard Subcommittee (the Subcommittee) is attached as Appendix A.

The Subcommittee determined that no minutes or transcripts would be kept but that, at the conclusion of its work, all documentary materials received be delivered to the Coast Guard for its files, and that the Subcommittee's final report to NBSAC, together with minority or dissenting statements, if any, stand as the definitive record of its work.

II. INFORMATION OBTAINED

At the outset, the Coast Guard supplied materials from its files to the Chairman, who sent requests to the persons and organizations listed in Appendix B asking for files, data, case histories and other information bearing on the subject. Documents received were copied and distributed to each member of the Subcommittee for study prior to the first meeting. At the conclusion of that meeting, the Subcommittee developed a comprehensive list of further documentation, materials and information to be sought, and of persons to be invited to meet with the Subcommittee. Documents and materials were also volunteered by interested parties. Video tapes and other visual materials were exhibited at the meetings. Appendix C lists all documents received and considered, along with video tapes and visual materials reviewed by the Subcommittee.

III. MEETINGS HELD

The first meeting of the Subcommittee was held at the Boston Whaler facilities at Rockland, Massachusetts, on

September 22 and 23, 1988. Various types of propeller guards, both commercially available and experimental, underwater motor housing appendages and other relevant materials were presented but not deposited with or retained by the Subcommittee. Members of the Subcommittee also viewed and were given a hands-on opportunity to operate Boston Whaler boats used by the U.S. Marine Corps, one equipped with a "Chadwell" ring-type guard, and the other without.

The second meeting was held in New Bern, North Carolina, on November 14, 1988, and a third meeting at Couer d'Alene, Idaho, on May 12 and 13, 1989. Following that session, the Subcommittee concluded that sufficient written and verbal presentations and demonstrations had been seen and heard to cover the field; collection of documentary material amassed and reviewed was reasonably representative of presently available, relevant data; and further document search or additional meetings with concerned persons was unlikely to produce substantial additional information.

Between the May 1989 and November 1989 NBSAC meetings, this report was drafted and unanimously approved by Subcommittee members, and the Chairman was directed to deliver it to NBSAC at its regular meeting scheduled for November 6, 1989. The Chairman was directed that, following NBSAC action on the report, all documents and other materials collected by the Subcommittee be delivered to the U.S. Coast Guard for its files.

IV. INDIVIDUALS HEARD

The following persons made presentations to the Subcommittee and generally made themselves available for questioning and discussion. Other interested persons attending the meetings are listed in the order of appearance:

1. Richard Snyder: Principle Engineer-Product Evaluation with Mercury Marine. Has testified in behalf of Mercury as Defendant in opposition to guards.

2. Brian Chadwell: designer, manufacturer and seller of ring-type propeller guards. Has testified on behalf of plaintiffs in propeller strike litigation.

3. Ben Hogan: attorney for plaintiffs in such cases and proponent of guards.

4. Donald Blount: civilian naval architect, 34 years with the U.S. Navy, heading the section for design and testing of small boats. Has testified for defendants.

5. Lars Granholm: at one time employed by the Coast Guard as an engineer, currently Director of Industry Safety Standards for the National Marine Manufacturers Association. Has testified for defendants.

6. D.P. Huelke: Professor of Anatomy, University of Michigan, researcher and consultant on trauma injuries, particularly in the automobile industry. Has testified for defendants.

7. Robert Taylor: marine engineer and naval architect, formerly of the University of Michigan and U.C. Berkley [sic], former ship designer for the U.S. Navy, and currently Supervising Marine Engineer of Failure Analysis, Inc. Has furnished statistical data on behalf of defendants.

8. Dr. James Benedict, M.D., Biodynamic Research Corporation, a researcher on effect of traumatic impact on the human body. Has testified on behalf of defendants.

9. Ms. Linda Barnby: victim of a propeller strike injury and advocate of guards. Represented the Florida Audubon Society.

10. Dr. Albert Burstein: New York City's Hospital for special Surgery, a mechanical and biomechanical engineer specializing in sports related injuries and development of protective devices.

Dr. Lawrence E. Thibault, of Biomechanics, Inc. and the University of Pennsylvania, who has testified as a plaintiff's expert biomechanics witness in numerous propeller strike cases, accepted an invitation to participate in, and was scheduled for the Idaho meeting, but failed to appear. (The Subcommittee had previously received a copy of his report and letter dated August 14, 1987, prepared for plaintiff's attorney Stephen R. Bolden in seven of the 19 propeller strike cases described in the report).

In the Subcommittee's deliberations, reports prepared by engineers John G. Hill, Arthur M. Reed and Robert Taggard, in support of plaintiffs in litigation, were reviewed, along with other pertinent documents. (See Appendix C).

V. KEY POINTS COVERED BY VERBAL INPUT AND WRITTEN MATERIALS

1. Litigation

A number of law suits have been filed by victims of alleged propeller strikes to recover damages from the operator of the striking vessel and also against the manufacturer of the propulsion unit and/or boat. In those cases seeking to hold the engine manufacturer liable, the following legal theories have been asserted by propeller guard advocates:

a. The manufacturer has a duty to design boat propulsion machinery in a prudent manner, which includes a duty to design against hazards, if feasible. Since propeller injuries are a known hazard, and guards are presumed feasible, a manufacturer is negligent and liable for damages (regardless of, or in addition to, liability of the boat operator), for failing to incorporate guards.

b. Alternatively, if no feasible guards presently exist, the manufacturer is nevertheless presumed liable for failure to have funded and conducted whatever research and development may be needed to design and produce effective guards.

c. Guards, in addition to protecting persons, also protect propellers from destructive bottom contact. They are currently feasible and available, and manufacturers should be liable because they choose not to furnish guards in order to profit from sale of replacement propellers.

Advocates have petitioned federal and state legislators and regulators to mandate propeller guards. Such mandate would necessarily be predicated on the feasibility of guards and establish prima facie manufacturer liability in having failed to provide them. Feasibility, accordingly, is one of the important questions before the Subcommittee.

In defending "propeller strike" cases, engine and boat manufacturers have asserted:

a. Guards are feasible only at idling or very low speeds and for limited purposes, but are not feasible at normal operating speeds at which the majority of propeller strike accidents occur.

b. A very high percentage of the reported accidents of "struck by boat or propeller" do not involve propeller strikes, but involve impacts with the boat hull or a stationary component of the lower unit.

c. At normal recreational boat operating speeds the increased drag and hydrodynamic characteristics created by known types of guards cause a new hazard by dangerously affecting the handling and stability of the vessel.

d. Since all types of known guards substantially increased the frontal area of the underwater appendages of an engine, the chances that a victim will be hit are greatly increased.

e. A victim hit by other than a very slight glancing blow from the guard on a boat operating at normal or planing speeds, will suffer impact injuries more devastating than being cut by a propeller.

f. The ring-type and wire mesh or "catcher's mask" guards create a new hazard of catching and trapping a victim's limbs resulting in more severe injuries and/or drowning.

g. To recover normal operating speeds lost to guard drag, the engine horsepower and fuel consumption must be raised by at least 50% with consequent and proportionate increases in exhaust emissions.

h. To retrofit the propulsion units now in existence would require the design and manufacture of several thousand different guard models, since each one must be individually designed for the engine to which it is to be fitted. Every unit must be engineeringly modified for the boat hull on which the engine is mounted, to guard against dangerous handling characteristics.

Manufacturers are opposed to mandatory propeller guards and assert that propeller strike accidents constitute less than 5% of the total annual boating fatalities. They assert that safety

efforts and education should address operator incompetence, negligence and alcohol involvement. Improvement in the overall field of safe boat handling would, in the same proportion, beneficially affect the incident of propeller strikes and underwater impacts.

2. Statistical dimensions of the problem

Statistical sources include accident reports filed with the Coast Guard, hospital emergency room sampling by the National Electronic Injury Surveillance System (NEISS), state records, insurance records, and statistical sampling and analysis of selected groups of cases by professional organizations. There are obvious variations in reported statistics. No universally accepted, accurate and complete compilation came to the Subcommittee's attention.

Reports of individual accidents are made at varying times after the accident and may be prepared by the operator, the victim, or an enforcement officer who normally has not seen the accident and must rely on witnesses, if available. Attending physicians in emergency rooms, under the pressure of giving immediate medical or surgical attention, will have difficulty in understanding exactly what happened and in what sequence. Of these people, very few, if any, will have undergone specific training to qualify them as experts in determining the cause of such injuries.

The standard form of boating accident report as prepared by the Coast Guard and followed by many state agencies has one category to be checked under the box "type of accident" identified as "hit by boat or propeller". Such reports, principal

source of statisticians, do not distinguish whether the victim's injury resulted from striking by the boat, the underwater propulsion unit which precedes the propeller (namely, the gear housing, skeg, anti-ventilation plate), or by the propeller, or a combination of all three. (See Figures A and B) The reporting form also does not have a specific space for reporting speed at the time of the accident.

The Coast Guard believes that only 5 to 10% of all boating accidents, not involving fatalities, are reported. The Subcommittee believes that the compilation of accident reporting varies proportionately to the severity of the injury, from nil in the case of very minor injuries, to fairly complete in fatalities.

Although available statistics are imperfect and incomplete, it is probable that the circumstances influencing the preparation and filing of reports remain constant. Thus year-to-year comparisons and trends, particularly as to fatalities, are reasonably informative and valid for the purposes of this inquiry.

In contrast to the obvious deficiencies of accident reporting, statistics on the number and types of boats and engines manufactured and in use can be considered accurate.

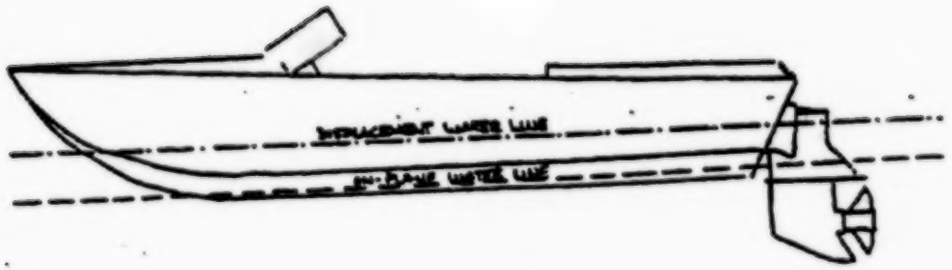

Figure A

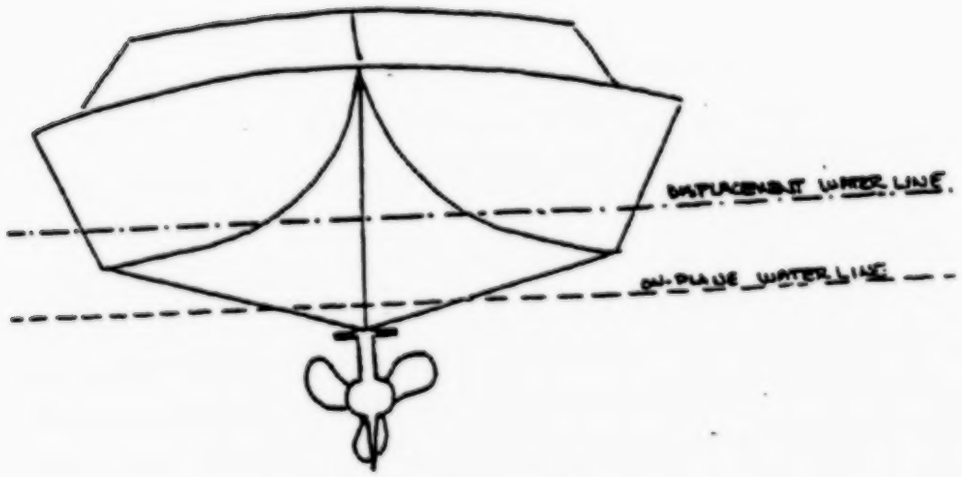

Figure B

The following data was used by the Subcommittee:

Boat population of the United States as of 1988

Horsepower of the engine(s)	number
*None (rowboats, canoes, inflatables)	4,100,000
1 to 5	1,600,000
6 to 10	2,100,000
11 to 30	1,700,000
31 to 50	2,300,000
51 to 100	2,500,000
Over 100 horsepower	2,700,000
	17,300,000

Boat length by feet	
Under 16	9,515,000
16 to 25	7,149,000
26 to 39	568,000
40 to 65	95,000
Over 65 feet	11,000
	17,300,000

*Exception: only occasional use of low horsepower engines.

3. Annual recreational boating fatalities

Robert Taylor of Failure Analysis, Inc. presented information from his organization's data base which had been compiled from all major statistical sources (See Appendix E). Summarizing such statistics for the year 1982: fatality total for recreational boating was 1,183 compared to 1,594 for

swimming pools, 1,900 for firearms (excluding homicide and suicide), 2,800 swimming, 4,453 motorcycles, with motor vehicle fatalities exceeding 43,000. For open motorboats of 14 to 18 feet in length, the contributing factors to fatalities were: falls overboard 35.8%, capsizing 31.9%, collisions 21.2% swamping/flooding 8.9%, and struck by propeller 4.9%.

The calculated risk of fatality in 1982 per each million activity hours of recreational boating was said to be 1.26 for inflatables, 0.62 for canoes/kayaks, and 0.59 for rowboats, in each case with no engine being involved, compared to a risk of 0.14 from all causes for open motorboats (within which the risk of propeller strike itself is a very small fraction). The estimated number of fatalities per million exposure hours in recreational boating (0.14) was compared at the bottom of a list of other recreational activities, with 0.88 in hunting, 1.41 in high school and college football games, 3.08 in scuba diving and 17.34 in private flying.

Water skiing was considered a special risk in itself (separate from the category of recreational boating) and, according to Failure Analysis data, accounted for some 40 annual fatalities (only a portion of which were propeller strikes). It is estimated that over 14,000,000 persons participated in water skiing annually.

4. How propeller strike accidents occur

In almost all cases the victim is in the water, as a swimmer, snorkeler or scuba diver, a downed water skier, or more frequently, as a result of falling or being thrown from a boat. While some victims have been struck by propellers in the

air in accidents where one vessel collides with and passes over another vessel, such incidents appear to be rare.

Passengers moving about or improperly seated, such as "bow riders", or persons sitting on the gunwales or transom, are ejected by sharp turns, wave or wake bounces, all at speeds which may be too fast for the prevailing conditions. Persons also are ejected from boats by collisions with another vessel or fixed object. Operator inexperience, incompetence, negligence; and alcoholic intake are significant contributing factors in reported "propeller strikes" as well as in other kinds of boating accidents. Ejections can also be caused by sudden acceleration or deceleration, either from operator error, equipment failure or malfunction, or striking masses of weeds or other submerged objects.

Presentations illustrated that approximately 80% of all accidents occur when a boat is operating at speeds in excess of 10 miles per hour, i.e. normal operating or planing speeds. Accidents occurring at idling or slow speeds (2 to 10 miles per hour) most typically appear to happen when the operator is in the process of picking up a fallen water skier, moving in the vicinity of swimmers, or inadvertently putting an engine in gear when swimmers are using a boarding ladder or platform.

5. Types of propulsion

The most common propulsion unit used is the outboard motor, mounted on the stern of a boat and rotated to steer of the boat. Second is the inboard/outboard device, powered by an engine mounted inside the boat, with an exterior drive unit containing a gear case and propeller, which is moved from side

to side to steer the boat. In both cases, the lower unit, including the propeller, serves as the rudder in steering the boat.

A third common means of propulsion is an engine mounted in the boat to power a shaft passing through the hull, and generally through a supporting strut, at the end of which the propeller is mounted. Such boats are steered by one or more separate rudders and may be either planing or displacement boats. Included in displacement boats are sailing vessels with inboard mounted engines and a shaft through the hull, sometimes off-center and sometimes on center line, with a cut out or other space between the shaft and a rudder. Such auxiliary sail boats commonly travel at speeds, when under engine power, well below 10 mph. Many small sailboats use low power outboard motors for auxiliary propulsion at low speeds. Auxiliary powered sailboats did not figure in any propeller strike accidents coming to the Subcommittee's attention.

In a fourth propulsion method, water is taken in through a submerged scoop and ejected by an impeller as a high speed jet of water pushing astern. A steering rudder may be required. Outboard jet engines have appeared on the market in recent years, particularly for fishing in very shallow water. Manufacturers state that jet drive outboards are 25% less efficient than comparable horsepower propeller driven outboards. In traditional boat types, jet propulsion units do not appear to have succeeded commercially. This has not been the case, however, with "personal watercraft". This jet-driven type of boat is increasingly figuring in accident and fatality statistics through collisions with other vessels or with swimmers in the water and operators falling in the vicinity of other craft.

6. Propeller guard designs and availability

Although many variations have been conceived and patents granted, there are essentially only three basic configurations of "propeller guards".

First is a ring band device commonly secured to the submerged portion of an outboard motor or stern drive unit and within which the propeller revolves. Unless supplemented by sufficient bars or mesh across the rim front and back, fingers, hands, arms, etc., can enter the ring and contact the propeller. Proponents of guards assert that most victims are struck at an angle to the boat, rather than frontally; that a boat in motion creates a pressure valve tending to push bodies to the side; and, therefore, that in most impacts a victim would receive only a minor glancing blow from a guard. As to frontal hits with a guard in place, it is asserted that the leading edge of the ring could be constructed of crushable material to absorb the energy of the impact, or be cushioned with flexible material covering metal or plastic parts, thus preventing serious injury to the struck victim.

Opponents assert that a blow from a guard, either frontally or at an angle from a boat traveling at speeds of over 6-10 miles per hour or any boat at planing speed, could cause serious or fatal impact if hitting the head or chest; that at such speeds a human body in the water is held stationary relevant to the striking force, and there is no wave effect pushing bodies to the side. Also, there is no known material available which, as a part of a propeller guard, could absorb energy on impact with the human body in water and maintain its shape and structural integrity under normal use. Opponents further assert that this

guard significantly increases the total area of possible underwater impact.

The second general type of guard is a screen surrounding the propeller like a fan cage or catcher's mask, constructed of wire mesh, bars or wires. Some patents show bars forward of the propeller, some vertical, some horizontal or combinations. To maximize protection, mesh must be small enough to prevent insertion of limbs and/or appendages and totally encompass the propeller. The mask device also significantly increases the total area of possible underwater impact. In the use of both the ring and the mask-type guards, opponents have stressed that the frontal impact area would be increased by three times by attaching the guard (See Figure C). They further contend that, while a submerged body limb may not be struck by the rotating blades of the propeller, they would certainly be struck by the guard, if the limb were in the path of the lower unit.

A third type is shrouding the propeller in a tunnel or tube, and in its most common application is referred to as the Kort nozzle. This was designed to control water flow to and through a propeller to increase its efficiency by producing greater power at low speeds, such as for tug boats and large ships. Vanes can be inserted in both the forward and aft ends of such nozzles to direct the flow of water for maximum efficiency and serve as barriers to the entry of body parts.

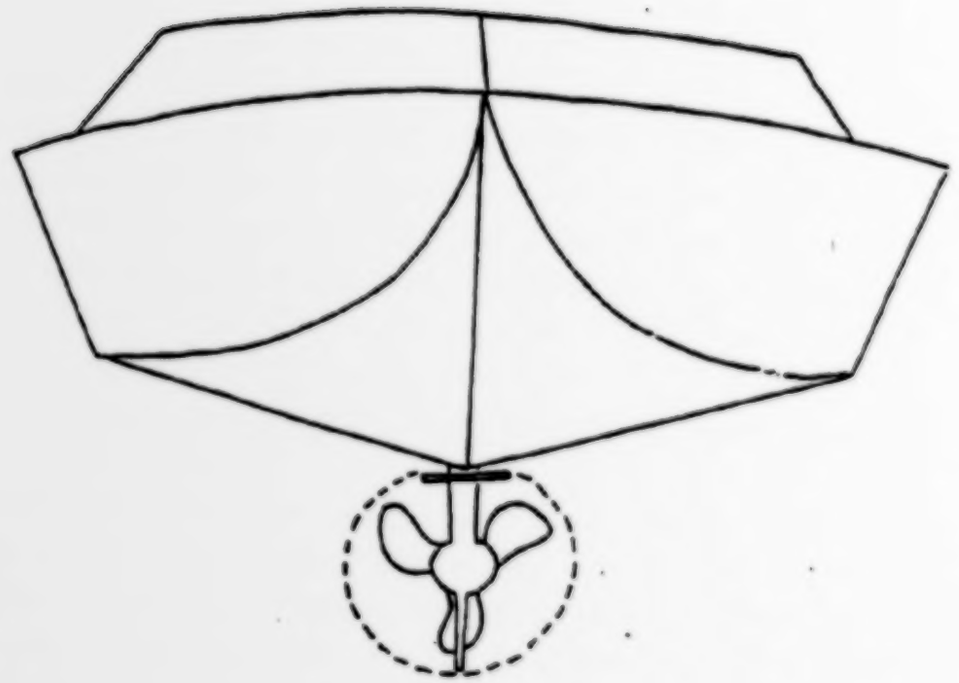

Figure C

Examples of the ring and mask types of guards were examined by the Subcommittee. No example of any nozzle device suitable for recreational boat use at normal operating speeds was brought to the attention of the Subcommittee. No guard device suitable for inboard engine drive propellers on displacement or planing motor boats, or on auxiliary sail boats was present.

7. Present use of guards

Fine mesh cage guards have been used for many years on amusement park bumper boats, which operate at very slow speeds (approximately 2 miles an hour or less) where problems of drag, engine efficiency, structural integrity and boat handling are negligible. Also, a blow to a person in the water at such very slow speeds has minimal effects. No evidence indicated that this solution had any validity for normal use of pleasure boats at normal planing speeds.

The mask guard with spaced rods is used in various parts of the world on rescue boats, often on inflatables, powered with 25 or more horsepower engines. In the typical rescue operation, the boats speed to the rescue scene and then operate at slow or idle speed while carrying out the rescue. The wide spacing of the bars required to minimize critical drag in speeding to the rescue scene does not prevent entry of body appendages.

It was reported that approximately 2,000 of the "Chadwell" ring-type guards have been sold, with some used on rescue boats in Australia and New Zealand and California. Some boats used by the U.S. Marines have been equipped with these guards. The intended use is to deposit Marine personnel

in the surf and then stand off-shore to await their recovery. In this simulated combat situation, it is critical to keep the motors operating, while also affording a certain degree of protection to personnel in the water. The Subcommittee understands that the U.S. Marine Corps is undertaking additional, more extensive study on the use of different types of guards. The U.S. Navy makes limited use of guards (although it was not stated whether they were rings or masks) to minimize entanglement of diving hoses on some boats used as diving platforms. The Navy has used "nozzle shrouds" around propellers of landing boats operating from well decks on the mother ship to move cargo and personnel ashore. This usage has a prime objective of protecting propellers from mechanical damage in striking the bottom of the well deck or submerged objects on the beach, while achieving high thrust at low speeds for more efficient operations.

8. Mechanical and hydrodynamic problems inherent in guards

It is clearly demonstrated that the ring-type guard creates severe steering and trim effects which cause serious safety and control problems. In the demonstration of the Boston Whaler boat equipped with a ring-type guard, the boat could not be brought out of a turn at high speed unless power was quickly reduced. In the hands of an inexperienced or negligent operator, a serious accident could result. Rings and their mounting devices increase drag with corresponding loss of speed.

An engineer for one of the engine manufacturers described experimental work done for the Marine Corps on a mask guard

which would have less severe steering and trim hazards than a ring guard and was expected to be less subject to critical damage on hitting bottom or submerged objects. The first cage, built of 5/16" diameter steel rod stood up structurally, but its drag reduced boat speed from 35 mph to 19 mph (when compared to use without a propeller guard). The second, built of 1/4" diameter steel rod more widely spaced solved steering but not drag problems, and vibration forces broke the welds. The added drag due to this mask or cage reduced boat speed from 37 mph to 27 mph (with two 70 horsepower engines). It was stated that, to regain the desired speed of 37 miles an hour, horsepower would have to be increased 100% to a total of 280. It was also found that the mask, as well as the ring-type guards, was vulnerable to crushing on hitting the bottom, pushed down by the weight of the boat bouncing in the waves, with consequent disablement of the engine. It was further stated that the objective of simultaneously protecting the propeller from damage, protecting landing personnel, and making no material sacrifice of speed involved irreconcilable physical laws and an insoluble manufacturing dilemma. To make the guard strong enough to withstand hitting the bottom or hard object resulted in unacceptable drag and handling – and to conserve desired speed, steering control and prevent entry of body appendages the guard would have to be so lightly constructed that it could not stand up to normal operating loads.

9. Biomechanical considerations

The density of water is approximately 830 times that of air. The density of the human body is approximately the same as water. Therefore, it follows that a human body immersed in water cannot move independently of the water around it. The

result of an object striking a human body in the water is that the body absorbs most of the energy of the striking object. As the speed of a striking object increases, the transferable energy increases by the square of that speed, and the force of the blow becomes correspondingly greater. The resistance force on body movement in water at 1 mile per hour is the same as a force of 29 mph in the air. It was repeatedly stated that a skull impact at 10 mph or more in the water would be generally fatal. A glancing head blow twisting the neck could result in a sheared neck at such speeds, and a chest strike could result in rib flexing in an unsustainable amount. Even with an idealized cushioning material, not currently known to exist, head or body cavity strikes at speeds over 10 mph could likely be fatal.

The auto industry and independent researchers have an extensive data bank resulting from numerous crash tests using technically sophisticated, instrumented manikins, from which generally accepted tables have been constructed concerning the forces which result in serious and fatal injuries. Although there are no such completed studies available regarding underwater impacts, tests have been conducted which reveal significant similarities. Video films of boats striking simulated limbs, surgically comparable to human limbs, and other submerged objects illustrated the injury-causing forces involved when an 18 to 25 foot boat, weighing up to thousands of pounds, traveling at speeds varying from 10 to 35 mph hits a body or object.

The human body has numerous rotational joints, i.e. the neck, wrists, fingers, elbows, ankles, etc. All are subject to serious and permanent injury depending on the force and mass involved in the impact. An oblique strike by an underwater

appendage can result in rotational injury or injury transmitted to another part of the body. According to Failure Analysis data, sports trauma, such as high school and college football, has nine times the fatality risk of recreational boating. This data reinforces the premise that serious or fatal injury can result from even relatively low speed and/or mass impact depending on the angle of the striking force and the location of the impact.

Propellers present the hazard of cutting wounds and penetrations of the body, while other underwater appendages, including guards (which increase significantly the potential impact area) present the additional hazard of blunt trauma injuries, which are often more severe.

It was stated that at a speed of 10 miles an hour, any fixed appendage of a boat (example: the skeg of an outboard motor) crosses a submerged limb in 1/50th of a second. With the water holding the limb relatively immobile, the limb tissue is torn, then the bone is crushed, producing a wound more serious than propeller cuts. Due to its revolutions, a propeller generally produces a series of evenly spaced cuts which are relatively easier to repair surgically.

All machinery or objects, whether created by man or nature, can inflict injury. It is impossible to make everything totally free of hazard. At a cost, we can be protected against many hazards. Most of the annual 43,000 motor vehicle fatalities, for example, could probably be prevented by mandating a national speed limit of 10 mph. The economic and social cost, however, would be unacceptable.

By definition, a guard must both diminish a hazard and leave the object capable of normal function, at a cost which is reasonable in proportion to the extent of the hazard. Diminishment of hazard is classically accomplished by various means, including barriers, shut down devices, warnings, and education for safe use. Above all, it is fundamental that a guard should not create a condition which leads to a new or worse hazard.

VI. SUMMARY

Up to 80% of underwater impact accidents occur at normal operating speeds, in excess of 10 mph and more usually in the 13 to 35 mph rate. The craft most typically involved is in the 15 to 25 foot range, powered by an outboard or inboard/outboard unit or units of 25 horsepower or more. This also is the bracket where the great majority of all accidents involving powered vessels occurs. Recent data reveal an increasing level of involvement of personal watercraft in boating accidents. The risk of accident increases during water skiing activity.

Nevertheless, boats and motors should be designed to incorporate technologically feasible safety features to avoid or minimize the consequences of inexperienced or negligent operation, without at the same time (a) creating some other hazard, (b) materially interfering with normal operations, or (c) being at economic costs disproportionate to the particular risk.

Proponents assert that propeller guard technology and/or availability meets the foregoing criteria and that guards should

be mandated. The Subcommittee does not agree and offers the following comments:

1. The concept of mask and ring-type guards is feasible at idling and very low speeds. Fine mesh guards can prevent propeller contact but are not feasible above 2-3 mph, which rules them out for recreational boating. Masks with wide mesh or spaced bars and ring guards may prevent cuts from body contact with a propeller but substitute the potential of blunt trauma injury, which becomes increasingly significant at speeds over 10 mph, leading to ascending serious risk of fatality as speeds increase. In recent accident reconstruction training exercises, it has been demonstrated that boats and their appendages can easily be construed as projectiles. Boats operating at planing speeds can easily penetrate or cause serious damage to other boats. These demonstrations serve to reinforce the damage potential of boat impacts with persons in the water. Either guard presents an underwater profile of significantly larger frontal area, thereby increasing the chances of contact. In the case of the ring-type guard, a new hazard is created, in that an arm, leg, etc., may be caught by the bars or ring and held against the rotating propeller. Operators of a "guard-equipped" boat can be expected to have a false sense of security when approaching persons in the water at slow speeds, with a very real risk of impacting and/or entrapping a body appendage.

2. At speeds of approximately 10 mph or greater, both types of guards – especially the ring – affect boat operation adversely. Both guard types result in drag increasing proportionally to the square of speed, resulting in substantial power and speed loss. This will require greatly increased power and fuel consumption to regain the lost speed.

3. Propellers encased in the Kort nozzle, or tunnel, substitute impact for propeller cut hazard, have rapid loss of efficiency above 10 mph and are not operationally feasible at normal pleasure boat speeds. The Kort nozzle is viewed as a low speed efficiency enhancer and not a guard.

4. Water jet propulsion eliminates the propeller and diminishes the underwater appendage impact area, but at a minimum 25% loss in efficiency and results in newly created operational handling problems.

5. No known materials are available to construct "soft" propellers or to construct or coat guards so as to absorb impact energy and prevent injury, yet maintain structural integrity and serve the intended purpose.

6. Adequate seat belts, if used by all boat passengers, could prevent some operator and passenger ejections into the water. A belted person involved in a capsizing, however, would then be subject to the risk of death by drowning.

7. Any guard would have to be both hydrodynamically and structurally compatible with the intended propulsion unit. Further, guards must not only fit the motor but be designed for hydrodynamic compatibility with the hull on which the motor is used. Since there are hundreds of propulsion unit models now in existence, and thousands of hull designs, the possible hull/propulsion unit combinations are extremely high. No simple universal design suitable for all boats and motors in existence has been described or demonstrated to be technologically or economically feasible. To retrofit the some 10 to 15,000,000 existing boats would thus require a vast number of guard models at prohibitive cost.

8. The suggestion that guards should be mandated, at least for water ski boats during which activity accidents occur at both high and very low speeds, and for boats equipped with swimming platforms and ladders, presents other problems. Water skiing or swimming from a boat is a part-time and limited activity and does not describe a boat type. Recreational boats are multi-purpose in nature, which precludes the practicality of an off-on use of a propeller guard. If guards were readily removable, automotive experience clearly shows that they would be by-passed by permanent removal. The Subcommittee feels that it is not practical or feasible to mandate guards for specific uses, such as water skiing or while a boat is being used as a swim platform. Furthermore, the removal of a guard could

result in inadvertent or intentional overpowering of the boat.

CONCLUSIONS

1. Accident data and the analysis of accident data must be an integral component of a study of this nature. There is no one single source, best source, or all-inclusive source of accident data. However, the available sources can be utilized collectively to give an accurate portrayal of the significance, frequency, and relative magnitude of underwater impacts to other causes of boating accidents in particular and accidents in general. There is no indication that any change in reporting would reflect significant changes in the relative position or percentage of injuries/fatalities due to underwater impacts. Therefore, propeller guarding at best could have only a negligible impact on improving boating safety.

2. Injuries/fatalities caused by underwater impacts result from a person coming into contact with the propeller or any part of the propulsion unit (i.e., lower unit, skeg, torpedo, anti-ventilation plate, etc.) and even the boat itself. Currently reported accidents make it obvious that all such components are involved in the total picture, and that the propeller itself is the sole factor in only a minority of impacts. The development and use of devices such as "propeller guards" can, therefore, be counter-productive and can create new hazards of equal or greater consequence.

3. Operator error is clearly a significant factor in the vast majority of underwater impacts which result in injuries/fatalities. Mandatory equipment requirements could be

expected to have only a negligible impact on this problem. The most rational approach to the problem is to educate boaters, especially operators. They must be made to understand the abilities and limitations of their equipment. They must be aware of and understand the hazards their boat can cause to people in the water. Above all, they must be made to understand the consequences of careless or negligent operation of their watercraft, and how they, as boat operators, can act to prevent accidents.

4. Although the controversy which currently surrounds the issue of propeller guarding is, by its very nature, highly emotional and has attracted a great deal of publicity, there are no indications that there is a generic or universal solution currently available or foreseeable in the future. The boating public must not be misled into thinking there is a "safe" device which would eliminate or significantly reduce such injuries or fatalities.

RECOMMENDATIONS

1. The U.S. Coast Guard should take no regulatory action to require propeller guards.

2. The U.S. Coast Guard should, through improved accident reporting and analysis, develop a complete and comprehensive data base on underwater impact accidents. This should involve, as an integral part, U.S. Coast Guard involvement in the National Electronic Injury Surveillance System (NEISS) and the appropriate training of involved hospital personnel.

3. The U.S. Coast Guard should implement necessary steps to have included in the national and state level educational and awareness campaigns the information regarding potential hazards associated with careless or negligent boat operation. Such programs should be on a continuing basis and be as vivid as possible in depicting underwater impact accident scenarios. These programs should state in a positive manner how such accidents can be prevented by diligent, informed boat operators.

4. The U.S. Coast Guard should work with appropriate voluntary standards making organizations (such as ABYC and SAE) to develop meaningful warning labels, and define their most effective locations, concerning the hazards of underwater impacts.

5. The U.S. Coast Guard should review manufacturing safety standards of watercraft, emphasizing the importance of keeping passengers and operators in the boat, and maintaining the unobstructed fore and aft view of the boat operator.

6. The U.S. Coast Guard should encourage a systematic review of current enforcement programs aimed at reducing boat accidents, and should provide all possible support to implement, maintain and expand those programs targeting the prevention of accidents.

Unanimously adopted by the
Propeller Guard Subcommittee

by /s/ James E. Getz
James E. Getz, Chairman

for: Donald J. Kerlin
Richard H. Lincoln
William D. Selden
Herman T. VanMell

APPENDICES

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APPENDIX E .... Failure Analysis Associates Summary

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APPENDIX A

Charge to the Subcommittee

APR 13 1988

NBSAC COMMITTEE

Propeller Guards/[Propeller Strikes/Propeller Protection]

Charge to the Committee:

- Review the available data on the prevention of propeller-strike accidents and Coast Guard study of various methods of shrouding propellers to prevent contact with person in the water.

- Assess the arguments for and against some form of mechanical guard to protect against propeller strikes reflecting the positions of state boating law administrators, the recreational boating industry, and the boating public.

- Among points to be considered:

  a. what is the incidence of such accidents?

  b. is there a trend toward more or fewer such accidents?

  c. what are the possible solutions and their advantages/disadvantages?

  d. how is this problem being addressed in other nations?

  e. what would be the direct costs and indirect costs (fuel economy, maintenance, etc.) of mechanical solutions?

  f. can the risks be addressed adequately by education?

  g. should the Coast Guard move towards a federal requirement for some form of propeller guard?

h. assess the potential for propeller equipped with each of several propeller guard designs to cause injury. How much has the propeller guard reduced the injury potential compared to the injury potential of the same propeller operating in an unguarded manner?

i. should only new boats and motors be equipped with propeller guards, or should all boats eventually be equipped with a guard?

j. what is the practical boat length limit beyond which propeller guards would not be required? are there other parameters which would dictate upper limits for guard installation?

Committee members:

Jim Getz (Chairman)
William Past
Dick Lincoln
Don Elison (USCG rep.)

APPENDIX B

List of Subcommittee Contacts

The following list represents the contacts made in behalf of the Subcommittee requesting information relevant to the Subcommittee's charge:

Dr. James Benedict, PhD., M.D.
Biodynamic Research Corporation
9901 IH 10 West
San Antonio, Texas 78230

Mr. Donald L. Blount, P.E.
Head, Combatant Craft Engineering Department
Naval Sea Combat Systems Engineering Station
P.O. Box 10418
Norfolk, Virginia 23513

Mr. Steve Bolden
Fell & Spaulding
211 South Broad Street, 8th Floor
Philadelphia, Pennsylvania 19017

Dr. Albert H. Burstein, PhD.
Director
The Hospital For Special Surgury
Department of Biomechanics
535 East 70 Street
New York, New York 10021

Mr. Brian Chadwell
Prop Guard, Inc.
1901 Shelter Island Drive
P.O. Box 6276
San Diego, California 92106

Dr. Michael Gallery, PhD.
Emergency Medical Foundation
Box 619911
Dallas, Texas 75261

Mr. Lars Granholm
Director, Technical Services
National Marine Manufacturers Association
401 North Michigan Avenue
Chicago, Illinois 60611

Director
Emergency Room Services
Falmouth Hospital
Ter Heun Drive
Falmouth, Massachusetts 02540

Director
Emergency Room Services
Jordan Hospital
275 Sandwich Street
Plymouth, Massachusetts 02360

Director
Emergency Room Services
Lakes Region General Hospital
Highland Street
Lanconia, New Hampshire 03246

Director
Emergency Room Services
Quincy City Hospital
114 Whitwell Street
Quincy, Massachusetts 02169

Director
Emergency Room Services

Salem Hospital
81 Highland Avenue
Salem, Massachusetts 01970

Executive Director
International Rescue and Emergency Care Association
8107 Ensign Curve
Bloomington, Minnesota 55438

Mr. Dennis Heussner
National Life Saving Director
Surf Life Saving Association of Australia
'Surf House', 128 The Grand Parade
Brighton-le-sands, N.S.W. 2216, Australia

Mr. John G. Hill
Naval Architect - Marine Engineer
P.O. Box 114
Oxford, Maryland 21654

Mr. R. Ben Hogan, III
Hogan, Smith, Alspaugh, Samples & Pratt, P.C.
2323 Second Avenue North
Birmingham, Alabama 35203-3758

Dr. Donald F. Huelke, PhD.
The University of Michigan
Transportation Research Institute
2901 Baxter Road
Ann Arbor, Michigan 48109-2150

Dr. Jack C. Hughston, M.D.

Editor
American Journal of Sports Medicine
428 East Preston Street
Baltimore, Maryland 21202

Mr. Alex B. Marconi
Senior Counsel/Litigation
Outboard Marine Corporation
100 Sea Horse Drive
Waukegan, Illinois 60085

Ms. Francis Munnings, Executive Editor
"The Physician and Sportsmedicine"
McGraw-Hill Healthcare Group
4530 West Seventy-Seventh Street
Minneapolis, Minnesota 55435

Mr. Arthur M. Reed
9106 Warren Street
Silver Springs, Maryland 20910-2140

Mr. Richard H. Snyder
Principle Engineer - Product Evaluation
Mercury Marine
W6250 West Pioneer Road
P.O. Box 1939
Fond Du Lac, Wisconsin 54936-1939

Mr. Robert K. Taylor, P.E.
Managing Engineer
Naval Architecture & Marine Engineering
Failure Analysis Associates, Inc.

2225 East Bayshore Road
P.O. Box 51470
Palo Alto, California 94303

Dr. Lawrence E. Thibault, Sc.D.
Biomechanics, Inc.
1611 Valley Greene Road
Paoli, Pennsylvania 19301

APPENDIX C

List of Documents and Materials Reviewed

The following is a listing of the documents and materials reviewed by the Subcommittee:

"Prediction of Whole-Body Response to Impact Forces in Flight Environments," by Ints Kaleps, a paper reprinted from the Conference Proceedings No. 253, Models and Analogues for the Evaluation of Human Biodynamic Response, Performance and Protection, North Atlantic Treaty Organization.

"Water Jet Propulsion - Competition for Propeller?," by Ralph E. Lambrecht, Society of Automotive Engineers, Automotive Engineering Congress, No. 740283, February 25-March 1, 1974.

"Review of the State of the Art of Swimmer Protection from Outboard Propellers," by Robert Taggart, 16 February 1979.

"Waterskiing Injuries," by Larry R. Pedegana, M.D., and Janice Lang, The Physician and Sportsmedicine, Vol. 7, No. 6, 1979.

"Propeller Injuries Incurred in Boating Accidents," by Ronald J. Mann, M.D., The American Journal of Sports Medicine, Vol. 8, No. 4, 1980.

Unpublished letter to Mr. Al Marmo, U.S. Coast Guard from Mr. Dick Snyder, Mercury Marine, reference propeller guards, dated December 15, 1980.

"Waterskiing-Related Injuries," by Gregory Hummel, M.D., and Barry J. Gainor, M.D., The American Journal of Sports Medicine, Vol. 10, No. 4, 1982.

"Hi-Performance Boat Operation," a booklet published by Brunswick Corp., No. 90-86168 3-184, 1984.

"Steering/Struck-by-Propeller Accident Study, 1983 Recreational Boating Accidents," by Gary Traub, U.S. Coast Guard G-BP-1, December 18, 1984.

Surf Life Saving Training Manual, issued by the Surf Life Saving Association of Australia, 27th Edition (Revised), 1985.

Inflatable Rescue Boat Training Examination and Operations Manual, issued by the Surf Life Saving Association of Australia, Third Edition, 1986.

Coast Guard Memorandum to Chief, Marine Safety Technology Branch, from Chief, Medical Operations Branch, reference Mercury Marine tests, dated June 2, 1986.

"Everything You Need to Know About Propellers," a booklet published by Brunswick Corp., No. 90-86144, Third Edition, 1987.

"The Technological Feasibility of Propeller Guarding for Pleasure Planing Craft," by John G. Hill, February 10, 1987.

"Boat and Propeller Impact Injuries and Fatalities," Project 763584.20 Final Report, by Edward S. Purcell and Walter B. Lincoln, U.S. Coast Guard Research and Development Center, 1 March 1987.

"Motorboat Propeller Injuries," by Charles T. Price, M.D., and Charles W. Moorefield, M.D., The Journal of the Florida Medical Association, Vol. 74, No. 6, June, 1987.

"The Feasibility of Propeller Guarding," by Arthur M. Reed, July, 1987.

"Propeller Guarding," a letter report by Lawrence E. Thibault to Mr. Stephen R. Bolden, Esq., dated August 14, 1987.

"Principles of Human Safety," by Ralph A. Barnett and William G. Switalski, Safety Brief, Vol. 5, No. 1, Tiodyne, Inc., February, 1988.

Letter to CAPT. Roger T. Rufe, Chief, Congressional Affairs Staff, U.S.C.G., from The Honorable Orrin G. Hatch, United States Senator, reference Mr. Jackson Howard's concerns about propeller guards, dated March 28, 1988.

Letter to The Honorable Orrin G. Hatch, United States Senator, from the Coast Guard responding to Mr. Howard's concerns, dated April, 1988.

Letter to Mr. James D. Martin, Alabama Commissioner of Conservation and Natural Resources, from Mr. R. Ben Hogan, III, reference propeller guarding, dated April 11, 1988.

Letter to Mr. Al Marmo, Chief, Policy Planning and Evaluation Staff, U.S.C.G., from Mr. R. Ben Hogan, III, reference propeller accidents in Alabama, dated May 5, 1988.

Letter to Subcommittee Chairman Getz from Mr. Lars Granholm, National Marine Manufacturers Association, reference 1979 Coast Guard study, dated May 31, 1988.

"Specification Criteria for the Manufacture, Testing & Commissioning of Safety Guards for Use on Inflatable Rescue Boats Engaged in Inshore Rescue Activities, and Schedule of Approved Guards," Bulletin No. 504-88, The Surf Life Saving Association of Australia, National Council, May, 1988.

Slide photographs of various guard devices, components of lower units, and tests submitted by Mr. Richard Snyder, Mercury Marine, submitted August 12, 1988.

Struck by Boat or Propeller manual analysis of 1983-1987 Coast Guard data by Subcommittee member Kerlin, dated September 22, 1988.

Letter to Subcommittee Chairman Getz from Mr. Donald L. Blount, P.E., reference a summary of his presentation to the Subcommittee on September 22, dated October 1, 1988.

Letter to Subcommittee Chairman Getz from Mr. R. Ben Hogan, III, reference propeller guarding information, dated October 6, 1988.

Letter to Subcommittee Chairmann [sic] Getz from Mr. Dick Snyder, Mercury Marine, reference a summary of his presentation to the Subcommittee on September 22, dated October 6, 1988.

Collection of propeller guard patents, compiled by Subcommittee member Montgomery, dated October 18, 1988.

Letter to Subcommittee Chairman Getz from NBSAC Chairman Garden, reference NEXUS data bank of published newspaper articles concerning propeller-related accidents, dated October 23, 1988.

Letter to Subcommittee Chairman Getz from Mr. Alex Marconi, OMC Senior Counsel/Litigation, reference response to the article "Motorboat Propeller Injuries" by orthopedic surgeon John Nordt, M.D. of Coral Gables, and other related matters, dated November 9, 1988.

Letter to Subcommittee Chairman Getz from Dr. D.F. Huelke, reference a summary of his presentation to the Subcommittee on November 14, dated December 19, 1988.

Letter to Subcommittee Chairman Getz from Mr. R. Ben Hogan, III, reference his updated article on propeller guarding, dated January 23, 1989.

Letter to Subcommittee Chairman Getz from Mr. Dick Snyder, Mercury Marine, reference a clarification of his presentation to the Subcommittee on Sptember [sic] 22, 1988 concerning USCG statistics, dated February 23, 1989.

Photographs of Dr. Thibault's Deposition Exhibits, OMC ATS Glabman, April 13, 1989.

Letter to Alex Marconi, OMC Senior Counsel/Litigation, from Kelly J. Flood, reference transcripts of Swint and Bruton San Diego Test videos, dated April 17, 1989.

Personal Watercraft Accident Summary, compiled by Subcommittee member Kerlin, dated May 9, 1989.

Letter to Subcommittee Chairman Getz from Mr. Richard Snyder, Mercury Marine, reference a summary of his work

with the U.S. Marine Corps delivered at the May Subcommittee Meeting, dated May 30, 1989.

Letter to Subcommittee Chairman Getz from Mr. R. Ben Hogan, III, reference August 9, 1989 stunt man prop guard tests, dated August 11, 1989.

Letter to Admiral Paul A. Yost, Commandant, U.S. Coast Guard, from Mr. Benjamin Kelley, President, Institute for Injury Reduction, reference the Institute's recent news conference and subsequent questions for the Coast Guard, dated August 15, 1989.

Letter to Mr. Benjamin Kelley, President, Institute for Injury Reduction, from Captain W.S. Griswold, U.S. Coast Guard, responding to Mr. Kelley's August 15, letter to Admiral Yost, dated August 23, 1989.

Letter to Subcommittee Chairman Getz from Mr. R. Ben Hogan, III, reference video tapes of a deposition of Dr. Charles Price (08/29/89), propeller guard segment on "CBS This Morning" (08/31/89), and prop guard demo (08/09/89).

Letter to Subcommittee Chairman Getz from the Biodynamic Research Corporation, reference an outline of Dr. Benedict's presentation to the Subcommittee in May, dated September 20, 1989.

Video Tapes, as follows:

Simulated Underwater Limb Impact Tests (SULIT), Mercury Marine, 1988, (21 min.)

Hirsch, Glover, Robinson & Sheiness, Hammonds vs. Yates, Marine Corps Raiders, (4 min.), Guard Operation by Snyder, (4 min.), Mercury and OMC Log Jumps, (4 min.), Ehrhardt Cage Test "Wynne", (6 min.).

Simulated Underwater Flesh Impact Test (Sausage Tests), Mercury Marine, (5 min.).

Chadwell Propeller Device On-Water Tests, Mercury Marine, (8 min.).

Sporting Life IRB's New Zealand, (25 min.).

March 1989 San Diego Texts, and March 1989 San Diego Tests, Bruton Tapes, Underwater Video, High Speed Film, Speed Runs.

Institute for Injury Reduction news conference release tape, propeller injuries/propguards, June 1989.

Ben Hogan/stunt man propeller guard tests, conducted August 9, 1989 (2 tapes).

Deposition of Dr. Charles Price, dated August 29, 1989.

Propeller guard segment of "CBS This Morning," dated August 31, 1989.

APPENDIX D

Subcommittee Agendas

PROPELLER GUARD SUBCOMMITTEE MEETING
BOSTON WHALER FACILITIES – ROCKLAND, MA
SEPTEMBER 22 & 23, 1988

AGENDA

Thursday, September 22

8:30 AM - 9:50 AM	Subcommittee Welcome, Orientation, and Literature Review
10:10 AM - 11:00 AM	Presentation to the Subcommittee Mr. Richard Snyder – Mercury Marine
11:10 AM - 12:00 PM	Presentation to the Subcommittee Mr. Brian Chadwell – Propeller Guard Designer
1:00 PM - 1:50 PM	Presentation to the Subcommittee Mr. Ben Hogan – Attorney for Advocates

2:00 PM - 2:50 PM — Presentation to the Subcommittee Mr. Alex Marconi – Attorney for Outboard Marine Corp.

3:10 PM - 5:00 PM — Participation with the Subcommittee Previous participants will give points, counterpoints, rebuttals to other presentations, in addition to questions/ answers with the Subcommittee

Friday, September 23

8:30 AM - 10:00 AM — On-water propeller guard demonstration Boston Whaler representatives will provide a boat with and without a propeller guard

10:20 AM - 12:00 PM — Subcommittee review of newly presented information and plans for the future needs of the subcommittee, with a projected timetable for subcommittee work

PROPELLER GUARD COMMITTEE MEETING
NEW BERN, NORTH CAROLINA
NOVEMBER 14, 1988

AGENDA

1. Presentation by D.F. Huelke, Professor of Anatomy, University of Michigan

2. Review of papers submitted by previous speakers.
   Blount
   Hogan
   Snyder

3. Review of Garden letter, dated October 23, 1988, Re: Nexus.

4. Review of Committee Charges from September Meeting.

   Getz ..... Capt. Griswold letter
   Dr. Thiebault

   Kirlin ..... U.S.C.G. Statistical Analysis
   Consumer Product Safety Commission
   David Taylor Model Basin

   Mongomery . Patents
   Lexus
   Insurance Carriers

   Lincoln ..... Robert Taylor Graphs

5. Future Committee Schedule.

PROPELLER GUARD SUBCOMMITTEE MEETING
COEUR D'ALENE, IDAHO
MAY 12 & 13, 1989

AGENDA

Friday, May 12

1:00 - 1:10 PM	Review by Subcommittee Chairman
1:10 - 1:30 PM	Presentation to the Subcommittee Mr. Richard Snyder – Mercury Marine
1:30 - 3:00 PM	Presentation to the Subcommittee Mr. Robert Taylor – Failure Analysis, Inc.
3:15 - 5:00 PM	Presentation to the Subcommittee Dr. Lawrence Thibault – Biomechanics, Inc.
7:00 - 9:00 PM	Presentation to the Subcommittee Dr. James Benedict – Biodynamic Research Corporation

Saturday, May 13

8:00 - 10:00 AM	Presentation to the Subcommittee Dr. Albert Burstein – The Hospital for Special Surgery
10:00 - 5:00 PM	Subcommittee Review/Report Assignments

APPENDIX E

Failure Analysis Associates Summary

August 2, 1989

Captain James E. Getz, Chairman
Propeller Guard Subcommittee
National Boating Safety Advisory Council
Illinois Department of Conservation
110 James Road
Spring Grove, IL 60081

RE: Boating Accident Statistics

Dear Jim:

I am sorry, but I become busy and forgot to send you hard copies of some of the material pertinent to my Propeller Guard Subcommittee presentation. Enclosed are several charts showing accident (Fatality and Injury) statistics reflecting general activities, boating, and incidents involving being struck by "boat, propeller, or lower unit." Following are some comments regarding each chart.

Chart 1 "Accident Types" for Fatal Accidents for
Boats with Motors 1976-1981

The average number of recreational boating deaths from 1976-1981 is 1,325 per year. Of all fatal accidents for boats with motors 5.2% of the accidents involve being "struck by boat or propeller."

For the years presented, this amounts to an average of 49 fatalities per year associated with this accident mode. We know this number is higher than actual because we cannot subtract the subset "related to propeller contact" from those accidents where the individual was struck by only the boat or only other motor or steering appendages and not by the propeller. Estimates show that boating fatalities involving the propeller are probably closer to 30 per year.

Chart 2 Annual Fatalities

This chart indicates annually there are approximately two million deaths. The great majority of those deaths are associated with natural causes and disease. Only 5% of all deaths are premature accidental deaths. Nearly half of all accidental deaths involve motor vehicles. One percent of accidental deaths (1384 in 1980) are attributable to boating. Of these, approximately 30-49 incidents per year are associated with propeller involvement. On an absolute basis this is one third to one half the number of fatalities associated with being struck by lightning (94 in 1981).

Chart 3 Risk of Fatality by Activity

This bar chart depicts the relative comparative risk of fatality for various activities. Risk is computed by dividing the number of fatalities for a given activity or accident mode by the opportunities for the accident to occur. In this case, the opportunity is selected as one million exposure hours. An exposure hour is defined as one person spending one hour in pursuit of the activity. In other words, this chart shows the relative risk (or chance of fatality) for different activities if one

spent an equal amount of time (million hours in this case) in pursuit of that activity.

The risk of fatality on a per hour basis while boating, in general, is about one-fourth the risk of operating a motor vehicle and is comparable with the risk of flying in a domestic scheduled airline.

The risk of fatality of being "struck by boat or propeller" is one-third of the risk of traveling in a school bus for an equal amount of time.

Chart 4 Risk of Boating Fatality in 1981

This chart indicates that all boat types do not have the same relative risk of fatality. In fact, boats without motors (inflatables, rowboats, and canoes/kayaks) tend to be substantially more risky than boats with motors.

Chart 5 Rate of Boating Fatalities In Which the Accident Was Described As "Struck by Boat or Prop" 1975-1981.

This chart shows that even motor driven boats without external propellers (jet boats) are involved, on a per-boat basis, in a comparable number of "struck by boat" incidents.

Obviously, this fact demonstrates that in the real world there is no free lunch. Because jet boats have either no or minimal lower steering appendages, they tend to be more difficult to maneuver; consequently, jet boats are involved in collision type accidents. So, in this case, by eliminating one accident mode-

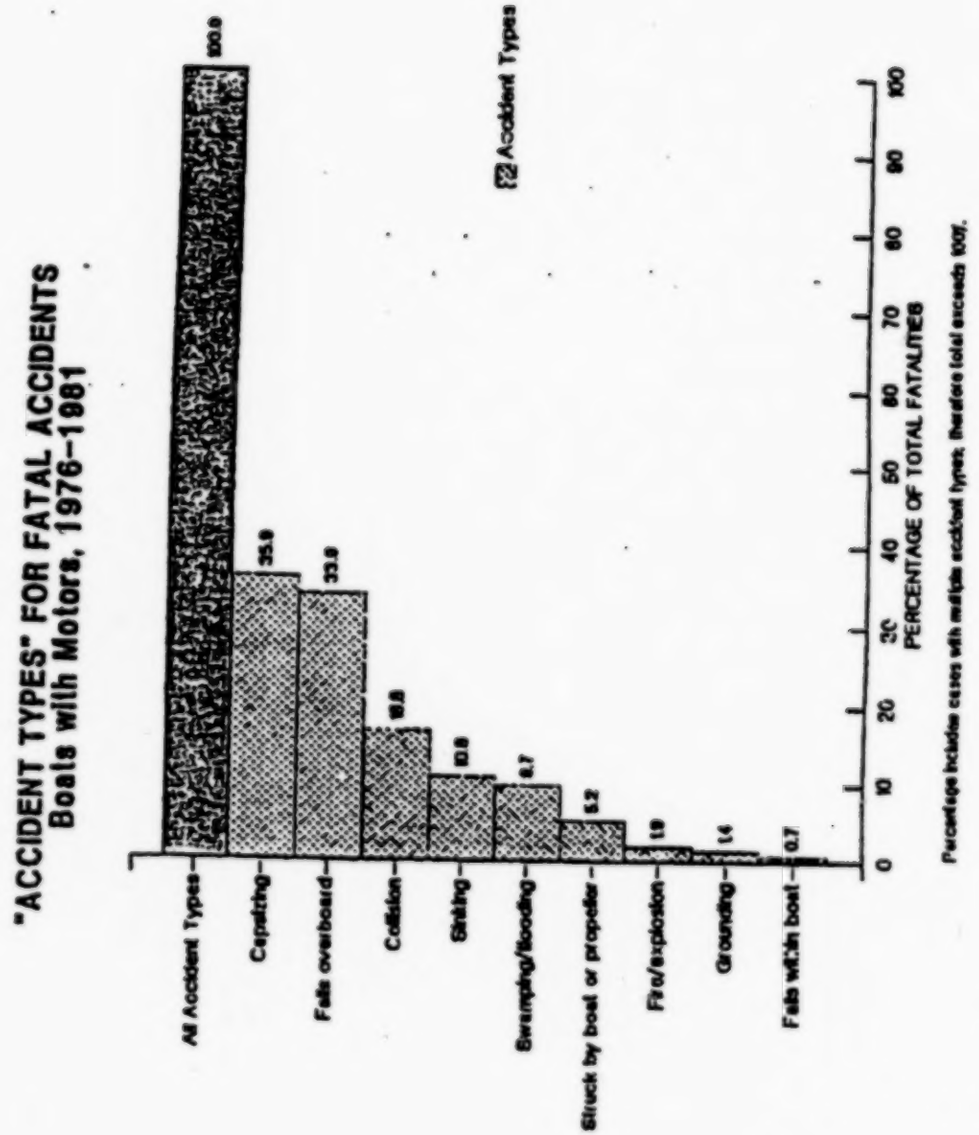
propeller strikes – other accident modes have been created or increased – collisions.

Chart 6 Risk of Injury by Activity

This chart shows the comparative injury risk (non-fatal incidents) for various activities. Its derivation is similar to the Risk of Fatality chart. Hospitalized injuries related to propellers while boating or water-skiing are approximately one-half of one percent of the risk of injury while boating or water-skiing.

I would be pleased to elaborate on any of the above issues. If the committee has specific questions they desire to be addressed or if you need further explanation of the background or references for the summary charts, please call.

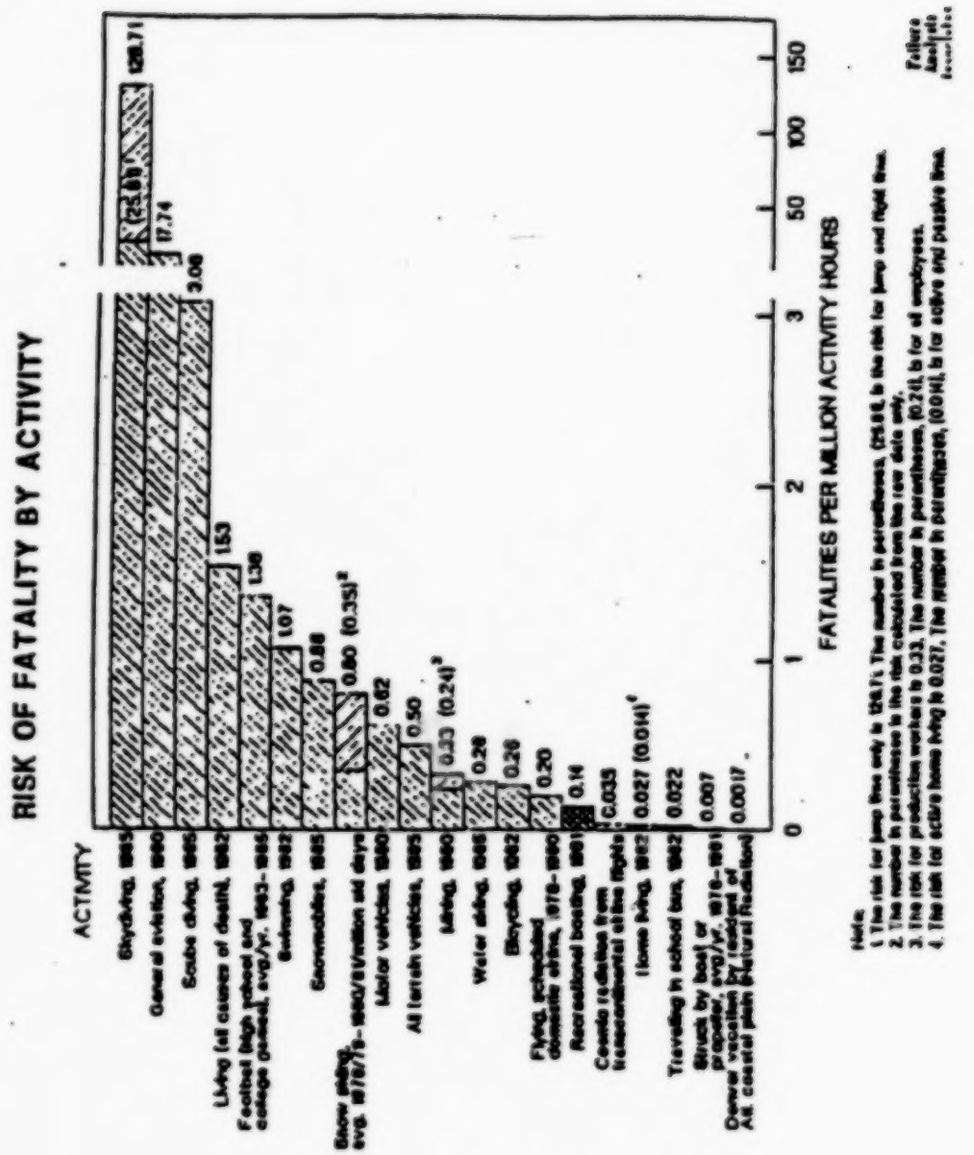
Sincerely,
/s/
Robert K. Taylor, P.E.
Managing Engineer
Naval Architecture & Marine Engineering
RKT:dg\getz.doc
Enclosure
Charts (1 orig & 6 Color Copies)



ANNUAL FATALITIES

All Causes, 1980	1,989,841
All Accidents, 1980	105,718
Motor Vehicles, 1980	53,172
Suicide, 1980	26,869
Homicide, 1980	23,967
Falls, 1980	13,294
Drowning, 1981	6,404
Swimming, 1981	2,513
Fires, Burns, 1980	5,822
Ingestion of Food, Object, 1980	3,249
Construction, 1980	2,500
Recreational Boating, 1980	1,884
General Aviation, 1980	1,237
Bicycling, 1980	965
Mining, 1980	500
Flying Scheduled Domestic Airline, annual avg. for 1978-1980	98
Lightning, 1980	94
Scuba Diving, 1980	89
Skydiving (Jump and Flight), 1980 (Jump Only)	47 (45)
Skiing, annual avg. for 1978/79-1980/81 (Raw Data)	37 (16)

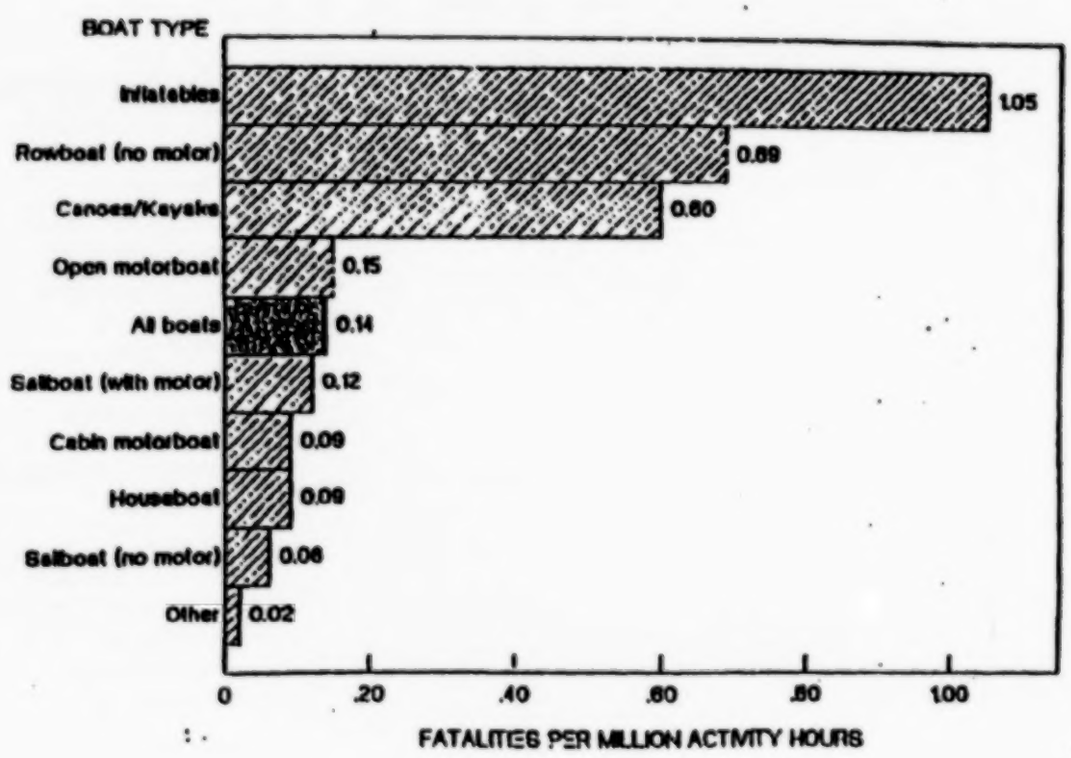
Note: Fatalities for recreational boating from U.S. Coast Guard Boating Accident Reporting System (BARS), and includes water skiing fatalities.



Notes:
1. The risk for jump time only is 128.71. The number in parentheses, (25.61), is the risk for jump and flight time.
2. The number in parentheses is the risk calculated from the raw data only.
3. The risk for production workers is 0.33. The number in parentheses, (0.24), is for all employees.
4. The risk for active home living is 0.027. The number in parentheses, (0.014), is for active and passive time.

Failure Analysis Associates

RISK OF BOATING FATALITY IN 1981

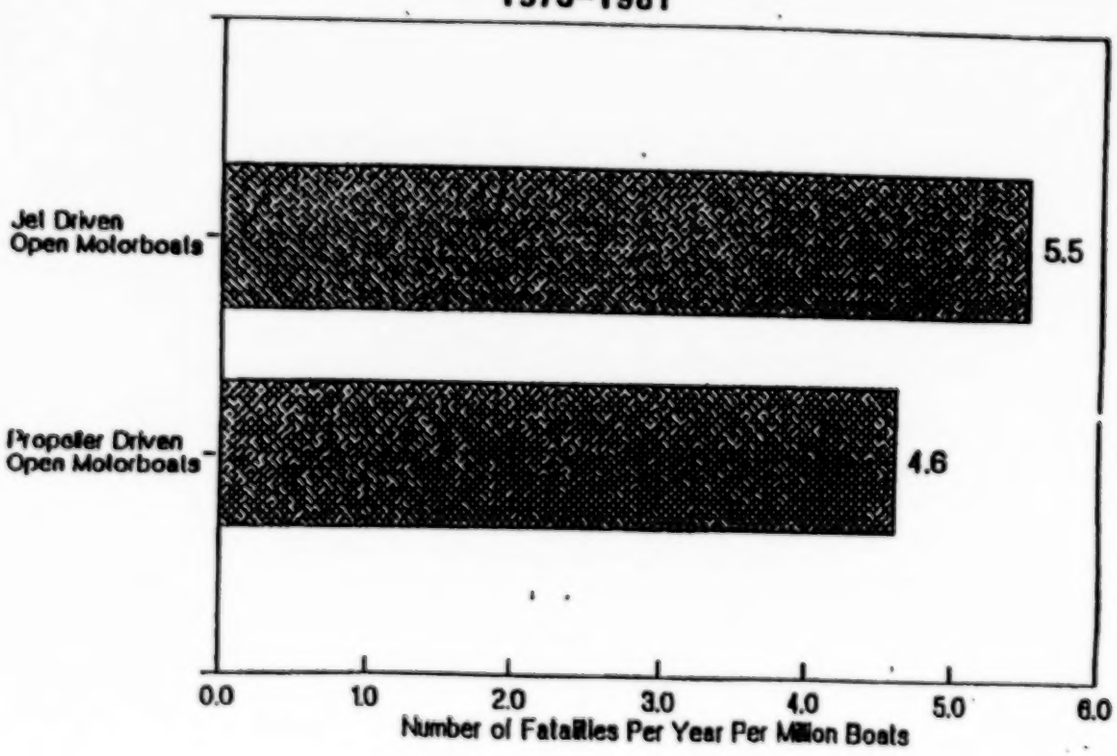


Note: Data from United States Coast Guard.

Failure Analysis Associates

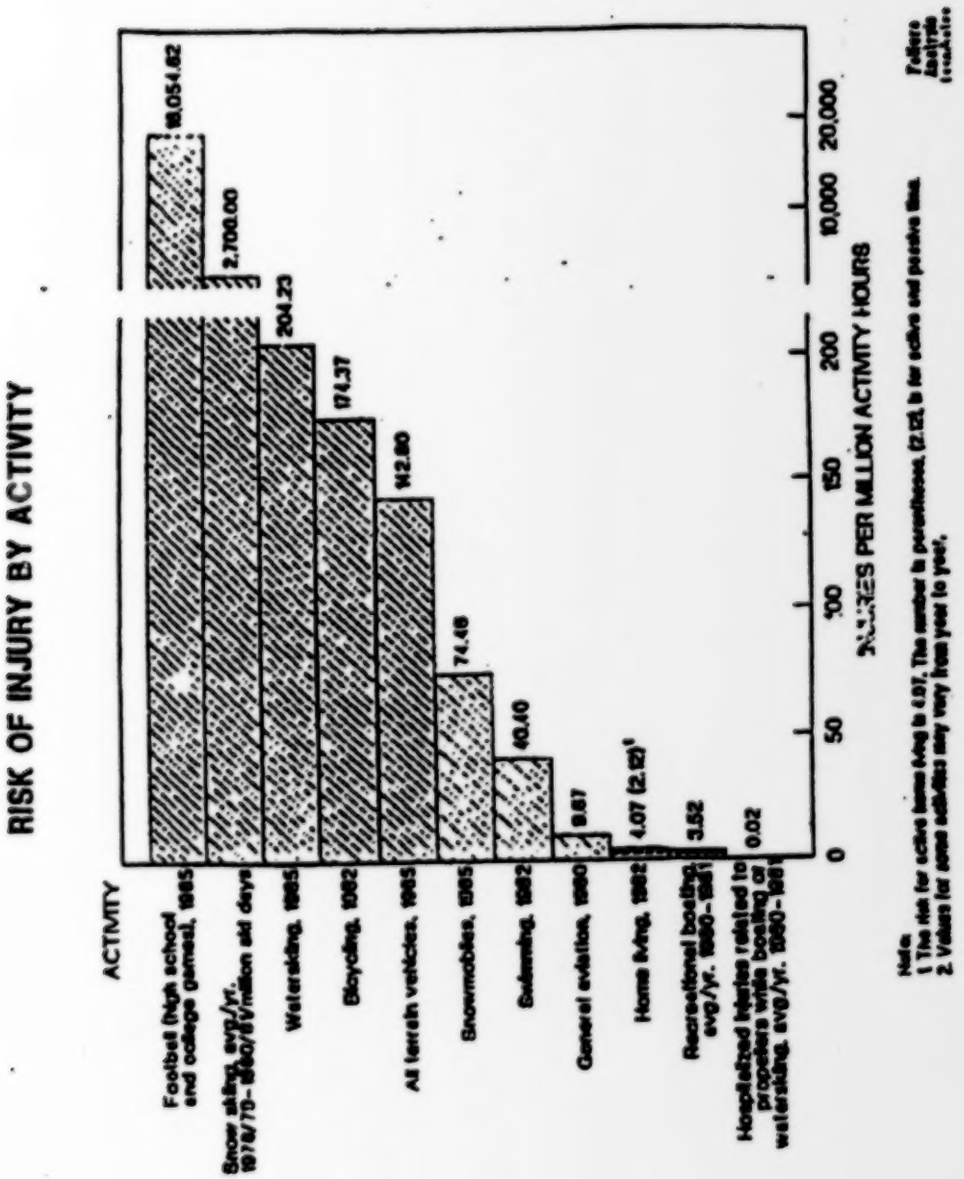
App. 68

RATE OF BOATING FATALITIES IN WHICH THE ACCIDENT WAS DESCRIBED AS "STRUCK BY BOAT OR PROP" 1975–1981



Failure Analysis Associates

App. 69



APPENDIX F

Subcommittee Members

The following members participated in the Subcommittee's deliberations and consideration of conclusions and recommendations:

CAPT. James E. Getz, Chairman, State Member
Mr. Donald J. Kerlin, U.S.C.G. Representative
Mr. Richard H. Lincoln, Industry Member
Mr. William D. Selden, Public Member
Mr. Herman T. VanMell, Public Member

The following members served at various lengths on the Subcommittee, but were not on the Subcommittee at the time of the consideration of conclusions and recommendations:

Mr. William M. Fast, Public Member
Mr. Roy T. Montgomery, Industry Member
LT. Joe L. Ruelas, State Member

Minutes of the 44th Meeting of the
National Boating Safety Advisory Council
(November 6-7, 1989)

44th MEETING
OF THE
NATIONAL BOATING SAFETY ADVISORY COUNCIL
LAS PALMAS
INTERNATIONAL DRIVE
ORLANDO, FLORIDA
6 - 7 NOVEMBER 1989

Monday 6 November 1989

0800 – Meeting called to order by Chairman Garden.

A complete record of all council proceedings is available on audio tape. For further information contact:

Captain W.S. Griswold, USCG
Executive Director
National Boating Safety Advisory Council
U.S. Coast Guard (G-NAB)
Washington, D.C. 20593-0001

Telephone (202) 267-1077 or Mr. Dean Klinger, Executive Secretary, NBSAC, at (202) 267-0997.

Council Members Present

Mr. A. Newell Garden, Chairman
Mr. John E. Bishop, Sr.
Mr. M.S. Blackistone
Mr. Robert E. Brightbill
Mr. Paul E. Donheffner
COL Donald N. Ellingsen
Ms. Yvonne S. Ferrell
Mr. E. Charles Game
CAPT James E. Getz
Mr. Philip Haseltine
Mr. Richard H. Lincoln
Mr. Robert F. MacNeill
Mr. Roy T. Montgomery
COL David E. Scott
Mr. William D. Selden
Mr. Al Simon
Mrs. Charlotte Toups
Mr. Eric A. Tulla
Mr. Herman T. Van Mell
The Honorable Chandler L. van Ornan
LT Michael Vinton

Council Members Absent

NONE

U.S. Coast Guard Headquarters' Representatives Present

CAPT W.S. Griswold, Executive Director, National Boating Safety Advisory Council (NBSAC) and Chief, Auxiliary, Boating, and Consumer Affairs Division, Office of Navigation Safety & Waterway Services; Mr. Dean E. Klinger, Executive Secretary, NBSAC; Mr. Donald Kerlin, Chief, Product Safety Assurance Branch; Mr. Richard Bergen, Chief, Consumer and Regulatory Affairs Branch; LT Randell Sharpe, Merchant Vessel Inspection and Documentation Division, Office of Marine Safety, Security and Environmental Protection; Commander Tom Meyers, Executive Director, Rules of the

Road Advisory Council, Office of Navigation Safety & Waterway Services.

[Text Omitted]

TUESDAY 7 NOVEMBER 1989

0800 Chairman Garden called the meeting to order:

MEMBERS PRESENT

Same as preceeding [sic] day (except Ms. Ferrell)

MEMBER ABSENT

Ms. Ferrell

VIDEO – "Boating Safety" courtesy of WCVB-TV/BOSTON

REPORT OF THE COMMITTEE ON PROPELLER GUARDS

Captain James Getz, Subcommittee Chairman, explained that his committee was charged to review, among other things, available information and obtain as much information as possible on the issue of strike by boat or propeller and subsequent or possible guarding or other related issues. He said that they provided the first objective opportunity for public review of what everyone knows is a very emotional and highly controversial subject. He stressed that the subcommittee was given only a charge and no specific recommendations or suggested conclusions by either of the Council Chairman or the Coast Guard. He remarked that the final report received

unanimous approval by the subcommittee members and there were no dissenting opinions or views. Captain Getz orally presented the following conclusions of the subcommittee to the Council.

1. Accident data and the analysis of accident data must be an integral component of a study of this nature. There is no one single source, best source, or all-inclusive source of accident data. However, the available sources can be utilized collectively to give an accurate portrayal of the significance, frequency, and relative magnitude of underwater impacts to other causes of boating accidents in particular and accidents in general. There is no indication that any change in reporting would reflect significant changes in the relative position or percentage of injuries/fatalities due to underwater impacts. Therefore, propeller guarding at best could have only a negligible impact on improving boating safety.

2. Injuries/fatalities, caused by underwater impacts, result from a person coming into contact with the propeller or any part of the propulsion unit (i.e., lower unit, skeg, torpedo, anti-ventilation plate, etc.) and even the boat itself. Currently reported accidents make it obvious that all such components are involved in the total picture, and that the propeller itself is the sole factor in only a minority of impacts. The development and use of devices such as "propeller guards" can, therefore, be counter-productive and can create new hazards of equal or greater consequence.

3. Operator error is clearly a significant factor in the vast majority of underwater impacts which result in injuries/fatalities. Mandatory equipment requirements could be

expected to have only a negligible impact on this problem. The most rational approach to the problem is to educate boaters, especially operators. They must be made to understand the abilities and limitations of their equipment. They must be aware of and understand the hazards their boat can cause to people in the water. Above all, they must be made to understand the consequences of careless or negligent operation of their watercraft, and how they, as boat operators, can act to prevent accidents.

4. Although the controversy which currently surrounds the issue of propeller guarding is, by its very nature, highly emotional and has attracted a great deal of publicity, there are no indications that there is a generic or universal solution currently available or foreseeable in the future. The boating public must not be misled into thinking there is a "safe" device which would eliminate or significantly reduce such injuries or fatalities.

Captain Getz informed the council that his subcommittee's recommendations are:

1. The U.S. Coast Guard should take no regulatory action to require propeller guards.

2. The U.S. Coast Guard should, through improved accident reporting and analysis, develop a complete and comprehensive data base on underwater impact accidents. This should involve, as an integral part, U.S. Coast Guard involvement in the National Electronic Injury Surveillance System (NEISS) and the appropriate training of involved hospital personnel.

3. The U.S. Coast Guard should implement necessary steps to have included in national and state level educational and awareness campaigns the information regarding potential hazards associated with careless or negligent boat operation. Such programs should be on a continuing basis and be as vivid as possible in depicting underwater impact accident scenarios. These programs should state in a positive manner how such accidents can be prevented by diligent, informed boat operators.

4. The U.S. Coast Guard should work with appropriate voluntary standards-making organizations (such as ABYC and SAE) to develop meaningful warning labels, and define their most effective locations, concerning the hazards of underwater impacts.

5. The U.S. Coast Guard should review manufacturing safety standards of watercraft, emphasizing the importance of keeping passengers and operators in the boat, and maintaining the unobstructed fore and aft vision of the boat operator.

6. The U.S. Coast Guard should encourage a system for review of current enforcement programs aimed at reducing boat accidents and should provide possible support to implement, maintain, and expand those programs targeting the prevention of accidents.

Captain Getz publicly thanked subcommittee members Richard H. Lincoln, William D. Selden and Herman T. Van Mell and Coast Guard representative Donald J. Kerlin for their extremely significant contributions to the project.

MOTION: that the Council accept the report, adopt the recommendations of the subcommittee, and discharge the subcommittee as having completed its task.

VOTE: In Favor – Unanimous

Mr. Lincoln commended Captain Getz for his performance as chairman of the subcommittee.

Chairman Garden told the Council that he had attended most of the subcommittee's meetings and had a very favorable impression of Captain Getz's leadership abilities.

Ms. Linda Barnby, a propeller strike accident victim, informed the Council that many more propeller strike accidents have occurred than have been reported to boating authorities. She feels that it is obvious that all related information is not in yet and that the search for new technology must continue in order to protect people and marine life.

A complete copy of the subcommittee's report may be obtained by contacting the Executive Secretary at the address or phone number listed on the first page.

Copies of all documents reviewed by the subcommittee may be obtained by contacting the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

Ms. Judith Valles, Save the Manatee representative, informed the Council on the problem of injury or death of manatees as a result of contact with boats and/or motors in Florida waters.

She concurred with Ms. Barnby's recommendation for continued research on propeller guards.

Chairman Garden assured the Council and guests that this is not a dead issue. If new pertinent information becomes available, a subcommittee will be reconvened.

[Text Omitted]

February 1, 1990

Department of Transportation
United States Coast Guard

Mr. A. Newell Garden
Chairman, National Boating
Safety Advisory Council
20 Hunter Street
West Newton, MA 02165

Dear Mr. Chairman:

We have completed our review of the "Report of the Propeller Guard Subcommittee" which was approved by NBSAC on 7 November 1989. All of the report's recommendations are accepted. The recommendations will be implemented within resource limitations as outlined below:

NBSAC Recommendation 1. The U.S. Coast Guard should take no regulatory action to require propeller guards.

Coast Guard Position. The regulatory process is very structured and stringent regarding justification. Available propeller guard accident data do not support imposition of a regulation requiring propeller guards on motorboats. Regulatory action is also limited by the many questions about whether a universally acceptable propeller guard is available or technically feasible in all modes of boat operation. Additionally, the question of retrofitting millions of boats would certainly be a major economic consideration.

The Coast Guard will continue to collect and analyze accident data for changes and trends; and will promote increased/improved accident reporting as addressed in recommendation 2. The Coast Guard will also review and retain any information made available regarding development and testing of new propeller guarding devices or other information on the state of the art.

NBSAC Recommendation 2. The U.S. Coast Guard should, through improved accident reporting and analysis, develop a complete and comprehensive data base on underwater impact accidents. This should involve, as an integral part, U.S. Coast Guard involvement in the National Electronic Injury Surveillance System (NEISS) and the appropriate training of involved hospital personnel.

Coast Guard Position. There are several avenues to obtaining better accident data. The key is accident investigation. The Coast Guard has been promoting and assisting increased and improved state boating accident investigation for a number of years. Several Coast Guard initiatives have been applied including development of a comprehensive "Marine Accident Investigation Manual," an annual series of Boating Accident Investigation Seminars around the country, and installation of an accident investigation module at the Coast Guard's National Boating Safety Course for state personnel. The need for a closer look at boat and propeller strike accidents will be stressed in the training.

We intend to go beyond existing Coast Guard/state accident reporting channels. We have explored Coast Guard participation in the National Electronic Injury Surveillance

Systems in the past and will take a renewed look at participation. Additionally, we are seeking proposals to improve accident reporting and analysis through our National Nonprofit Public Service Organization Grant Program. We are, for example, considering the use of college students to gather hospital emergency room and clinic information on boating accidents.

NBSAC Recommendation 3. The U.S. Coast Guard should implement necessary steps to have included in national and state level educational and awareness campaigns the information regarding potential hazards associated with careless or negligent boat operation. Such programs should be on a continuing basis and be as vivid as possible in depicting underwater impact accident scenarios. These programs should state in a positive manner how such accidents can be prevented by diligent, informed boat operators.

Coast Guard Position. National educational campaigns have been aimed at the major causes and types of boating accidents and means of preventing and mitigating, e.g., need for education and PFD wear, drinking and boating problems, capsizing and falls overboard from small boats. More specific campaigns focused on hypothermia, problems associated with boat use for fishing and hunting, etc. While struck by boat and/or propeller accidents aren't among the major types of boating accidents, careless and negligent operation are major causes of boating accidents. Results and means of avoiding underwater impact accidents could effectively be interwoven into campaigns aimed at negligent operation. The Coast Guard will explore means and opportunities for doing and promoting this. A series of articles in our Boating Safety Circular will be

developed aimed at avoiding boat/propeller strike accidents. Topics could include, for example, hazards, available propeller guards, warning labels, keeping people in the boat, avoiding bow and rail riding, avoiding swimming areas, etc.

NBSAC Recommendation 4. The U.S. Coast Guard should work with appropriate voluntary standards making organizations (such as ABYC and SAE) to develop meaningful warning labels, and define their most effective locations, concerning the hazards of underwater impacts.

Coast Guard Position. The Coast Guard is soliciting for project proposals to do this through our National Nonprofit Public Service Organization Grant Program. If this mechanism is unsuccessful, we will approach ABYC and SAE regarding including warning label development in their respective work programs.

NBSAC Recommendation 5. The U.S. Coast Guard should review manufacturing safety standards of watercraft, emphasizing the importance of keeping passengers and operators in the boat, and maintaining the unobstructed fore and aft view of the boat operator.

Coast Guard Position: Improvements may be difficult to address through the regulatory process because of the need for quantitative justification and the vast array of boat configurations. The Coast Guard will make industry more aware of the considerations of adequate operator visibility and designs to facilitate keeping persons in the boat. Voluntary standards and design guidelines may be the only alternative to address this recommendation in a structured fashion.

NBSAC Recommendation 6. The U.S. Coast Guard should encourage a systematic review of current enforcement programs aimed at reducing boat accidents, and should provide all possible support to implement, maintain and expand those programs targeting the prevention of accidents.

Coast Guard Position. Enforcement is a major component of a boating safety program. Initially, the Coast Guard will address this recommendation through guidance to and feedback from the states associated with the allocation and use of state financial assistance, also, the Coast Guard's National Boating Safety Course for state personnel. We will ask NASBLA to task its Law Enforcement/Uniform Boating Laws Committee with a review of enforcement programs.

Mr. Chairman, NBSAC members have handled this difficult and controversial task in an even-handed and professional manner. I want to commend you for your continuing leadership of the Council and the members of the propeller guard subcommittee for their fine work. Please pass my thanks to all the Council members for their work on behalf of safe boating.

Sincerely,

s/

ROBERT T. NELSON
Rear Admiral, U. S. Coast Guard
Chief, Office of Navigation Safety
and Waterway Services

60 *Federal Register* 25191
(May 11, 1995)

3 CFR Part 183
[CGD 95-041]
Propeller Accidents Involving Houseboats and Other Displacement Type Recreational Vessels

AGENCY: Coast Guard, DOT.

ACTION: Notice; request for comments.

SUMMARY: Boating accidents involving propeller strikes often generate a great deal of interest and concern. As a result of a serious accident involving a rented houseboat which occurred in 1993, for example, the Coast Guard has received considerable correspondence seeking the initiation of a rulemaking project to establish mandatory requirements for propeller guards on recreational houseboats and other displacement-type (non-planing) vessels, including those leased by livery operations. The Coast Guard wants to get an understanding of the public's present feelings about the use of propeller guards or possible alternatives to propeller guards on these vessels. In order to identify and consider the potential impacts such a requirement may have on the boating public, boat owners, boat operators, manufacturers, and livery companies leasing such vessels, the Coast Guard is requesting comments from interested parties.

DATES: Comments are requested by July 10, 1995.

ADDRESSES: Comments may be mailed to the Executive Secretary, Marine Safety Council (G-LRA/3406) (CGD 95-041), U.S. Coast Guard Headquarters, 2100 Second Street, S.W., Washington, D.C. 20593-0001, or may be delivered to room 3406 at the same address between 8 a.m. and 3 p.m., Monday through Friday, except Federal Holidays. The telephone number is (202) 267-1477.

The Executive Secretary maintains the public docket for this notice. Comments will become part of this docket and will be available for inspection or copying at room 3406, U.S. Coast Guard Headquarters.

FOR FURTHER INFORMATION CONTACT: Mr. Alston Coliban, Project Manager, Auxiliary, Boating, and Consumer Affairs Division, (202) 267-0981.

SUPPLEMENTARY INFORMATION:

Request for Comments

The Coast Guard encourages interested persons to participate in this request for comments by submitting written data, views or arguments. Persons submitting comments should include their names and addresses and identify this notice (CGD 95-041). Please submit two copies of all comments and attachments in an unbound format, no larger than 8½ by 11 inches, suitable for copying and electronic filing. Persons wanting acknowledgment of receipt of comments should enclose stamped, self-addressed postcards or envelopes.

Background and Purpose

The Federal statutes in 46 U.S.C. 4302 which authorize the Coast Guard to develop boating safety standards specify that such standards must be based upon a demonstrated need. In establishing a need, the Coast Guard must:

1. Consider the extent to which the regulations or standards will contribute to boating safety;

2. Consider relevant available boating safety standards, statistics and data, including public and private research and development, testing and evaluation;

3. Not compel substantial alteration of a recreational vessel or equipment that is in existence, or the construction or manufacture of which is begun before the effective date of the regulation, but subject to that limitation may require compliance or performance, to avoid a substantial risk of injury to the public, that the Secretary considers appropriate in relation to the degree of hazard that the compliance will correct; and

4. Consult with the National Boating Safety Advisory Council.

Current regulations in 33 CFR 173 and 174 require the operator of any vessel numbered or used for recreational purposes to file a Boating Accident Report (BAR) if the vessel is involved in an accident that results in: (1) Loss of life; (2) personal injury which requires medical treatment beyond first aid; (3) damage to the vessel and other property exceeding $500; or (4) complete loss of the vessel. Boat operators are

required to report their accidents to authorities in the State where the accident occurred, or directly to the Coast Guard if the accident occurred in Alaska. However, ongoing research indicates only a small percentage of reportable non-fatal boating accidents are reported each year.

Currently available data does not support a need for Federal regulations to require propeller guards on houseboats. Over 31,000 boating accidents were reported to the Coast Guard for the years 1989 to 1993. The BAR data base indicates that 17 "Struck By Boat or Propeller" accidents involving houseboats were reported, with 16 injuries and one fatality. Three accidents resulting in three injuries were of the category, "Struck by Boat," and 14 were of the category, "Struck by Propeller," and resulted in 13 injuries and one fatality.

Solicitation of Views

The Coast Guard solicits comments from all segments of the marine community and other interested persons on various aspects of propeller accident avoidance, including: (1) The economic and other impacts of establishing a requirement for propeller guards on recreational houseboats and other displacement vessels; (2) suggestions on alternatives to propeller guards which should also be considered; (3) recommendations on the applicability of regulations; and (4) the concerns of the recreational vessel livery and charter industries.

Persons submitting comments should do so as directed under *Request for Comments* above, and specify the area(s) of concern on which comments are being submitted, state what impacts may result from one or more alternatives identified,

suggest other alternatives, and provide reasons to support the information provided on potential impact or suggested alternatives.

The Coast Guard will consider all relevant comments in determining what action may be necessary to address propeller accidents involving houseboats and other displacement-type recreational vessels.

Dated: May 3, 1995.

G.A. Penington,
Rear Admiral, U.S. Coast Guard, Chief, Office of Navigation Safety and Waterway Services.
[FR Doc. 95-11661 Filed 5-10-95; 8:45 am]
BILLING CODE 4910-14-M

61 *Federal Register* 13123
(March 26, 1996)

33 CFR Part 183
[CGD 95-041]
Propeller Injury Prevention Aboard Rental Boats

AGENCY: Coast Guard, DOT.

ACTION: Advance notice of proposed rulemaking.

SUMMARY: The purpose of this Advance Notice of Proposed Rulemaking (ANPRM) is to gather current, specific, and accurate information about the injuries involving propeller strikes and rented boats. In a request for comments published May 11, 1995, the Coast Guard solicited comments from all segments of the marine community and other interested persons on various aspects of propeller accident avoidance aboard houseboats and other displacement type recreational vessels. The information received was voluminous, but was too general to be helpful. Consistent with the President's Regulatory Reinvention Initiative, the Coast Guard is interested in obtaining maximum public involvement before it makes any decision that would impose a new burden on the regulated community. Information gathered in response to this ANPRM will supplement that which the Coast Guard received in response to the request for comments and will be used to determine the appropriate Federal and State roles in reducing propeller-strike incidents, whether governmental intervention is appropriate and, if so, whether it should be directed at the vessels, their manufacturers, their operators or owners, or the companies leasing such vessels. This ANPRM also announces

one public meeting at Coast Guard Headquarters at which individuals and interested parties may make oral presentations about the propeller strike avoidance issue. The Coast Guard has also arranged four other opportunities, throughout the country, for those interested in this subject to express their views.

DATES: Comments must be received on or before September 1, 1996.

ADDRESSES: Comments may be mailed to the Executive Secretary, Marine Safety Council (G-LRA/3406) (CGD95-041), U.S. Coast Guard Headquarters, 2100 Second Street, S.W., Washington, D.C. 20593-0001, or may be delivered to room 3406 at the above address between 8 a.m. and 3 p.m., Monday through Friday, except Federal Holidays. The telephone number is (202) 267-1477.

The Executive Secretary maintains the public docket for this notice. Comments will become a part of this docket and will be available for inspection or copying at room 3406, U.S. Coast Guard Headquarters.

FOR FURTHER INFORMATION CONTACT: Mr. Randolph Doubt, Project Manager, Recreational Boating Product Assurance Division, (202) 267-0984.

SUPPLEMENTARY INFORMATION:

Request for Comments

The Coast Guard encourages interested persons to submit written data, views or arguments. Persons submitting

comments should include their names and addresses and identify this notice (CGD 95-041). Please submit two copies of all comments and attachments in an unbound format, no larger than 8½ by 11 inches, suitable for copying and electronic filing. Persons wanting acknowledgment of receipt of comments should enclose a stamped, self-addressed postcard or envelope.

The Coast Guard will consider all comments received during the comment period.

Background Information

The Coast Guard published a request for comments on propeller accidents involving houseboats and other displacement type recreational vessels on May 11, 1995 (60 FR 25191). In a second **Federal Register** notice published August 9, 1995, the Coast Guard reopened and extended the comment period until November 7, 1995. The Coast Guard received 1,994 responses. More than 1,800 of these were form letters from individuals who support the development of regulations to require the use of propeller guard technology or pump jet propulsion on vessels used in the rental houseboat industry. An additional 69 comments supporting the development of regulations to prevent the incidence of propeller-strike accidents were received from accident victims and their relatives, attorneys, physicians, State law enforcement agencies, manufacturers of devices designed to prevent propeller-strike accidents, and other individuals. Comments opposing regulations were received from 57 boaters, nine houseboat livery operators and marinas, members of 10 associations, committees, or councils, 13 boat and engine manufacturers, and six naval architects or marine consultants.

Solicitation of Views

While available data in the Coast Guard's regulatory docket on this subject does not fully support the costs or burdens that would be imposed by Federal regulation, the number of responses received to the request for comments indicates a great deal of public interest in whether and how the Federal Government should act to prevent propeller-strike accidents.

Persons submitting comments should do so as directed under **Request for Comments** above, and reply to the following specific questions. Form letters simply citing anecdotal evidence or stating support for, or opposition to regulations, without providing substantive data or arguments do not supply support for regulations.

1. The Coast Guard is making an effort to improve its database of recreational boating accidents resulting in injuries which require medical treatment beyond first aid. Part of that effort consists in trying to determine the extent to which accidents involving propeller strikes by rented boats are a problem. What information is available regarding the incidence of propeller-strike injuries or fatalities involving individuals who rent boats, and what trends, if any, do the data indicate?

2. To what extent are data available to indicate whether the type of propulsion (e.g., outboard motor, inboard engine or inboard-outboard engine) contributes to the incidence of propeller-strike accidents involving rental boats?

3. In two fatal accidents during the last several years, one on Lake Shasta and one on Lake Havasu, the victim was in the water and was struck by the propeller when a rental houseboat was put in reverse and backed into them. Several other houseboat accidents have resulted in injuries. The Coast Guard is interested in determining whether accidents involving propeller strikes and rented houseboats occur nationwide, or are limited to a few States or bodies of water. If the latter is the case, do any particular hazardous local conditions contribute to the likelihood of such accidents? If so, the Coast Guard is interested in determining the nature and location of those conditions.

4. To what extent are data available on the relationship between the consumption of alcohol or the use of controlled substances and propeller-strike accidents involving rental boats?

5. Some States have laws requiring boat operators to complete a boating safety course.

a. To what extent do available data indicate whether boater behavior patterns, a lack of boating education, or a lack of boating law enforcement contribute to the incidence of propeller-strike accidents involving rental boats?

b. Do data indicate whether mandatory boating education for individuals renting boats with propellers significantly contribute to a reduction in the number of propeller-strike accidents?

c. If so, do data indicate what type of boating education would be the most effective?

d. What other vessel operator-oriented requirements might reduce the incidence of propeller-strike accidents involving rental boats?

e. What economic or other burdens would be imposed on companies leasing recreational boats if either the Federal or State Government was to require education of individuals renting propeller-driven boats?

6. The two fatal accidents mentioned above occurred when individuals were in the water astern of the vessels and the vessels were put in reverse. While limited operator visibility astern may have contributed to the accidents, the transom is also the usual location for swim platforms and boarding ladders for swimmers. Do available data indicate whether vessel design features contribute to the incidence of propeller-strike accidents involving rental boats? If so, what vessel design features might reduce the incidence of propeller-strike accidents involving rental boats?

7. Are there any proven technologies that would help reduce the risk of propeller-strike accidents involving rented boats? What technologies are unacceptable, and for what reasons?

8. The two fatal accidents mentioned above involved rental houseboats. If the Coast Guard developed regulations in

this area, how should it define the term, "houseboat?" Are there any other vessel types the Coast Guard should consider regulating? If so, what vessels, if any, should be excepted from such regulations?

9. What, if any, types of information should be displayed on boats and/or motors leased, rented or chartered for noncommercial use for the purpose of alerting operators or passengers to the dangers of a propeller strike?

10. What are the economic and other impacts on companies renting boats or other entities if the Coast Guard were to require companies to retrofit such vessels with devices or methods of propulsion designed to reduce the incidence of propeller-strike accidents? In considering regulations, the Coast Guard must assess the potential adverse impacts on small business entities. To what extent are small entities engaged in leasing recreational boats?

11.a. How many companies are currently leasing propeller-driven boats for bareboat charters by the recreational boating public? How many vessels are involved and on which bodies of water?

b. How many companies are currently offering propeller-driven uninspected boats for charter by the recreational boating public? How many vessels are involved and on which bodies of water?

12. What adverse impacts might result from the regulation requiring livery companies to verbally brief individuals renting propeller-driven boats about the dangers of

propeller-strike accidents, and requiring individuals chartering such vessels to acknowledge receiving the information?

13. Under current Federal statutes (46 U.S.C. 4306), the States do not have the authority to establish carriage requirements for associated equipment, such as a mechanical means for preventing propeller strikes, on vessels operated on waters where both the Coast Guard and the State have jurisdiction. However, a State may impose more stringent requirements on vessels such as rental boats on waters subject to the State's exclusive jurisdiction, so long as such a requirement is not imposed upon vessel manufacturers. What is the proper role for the States in reducing propeller-strike accidents involving rented boats? If the Coast Guard allowed the States to regulate the equipment carried, or the use of rental boats, how would interstate commerce be affected?

Open Meetings

A subcommittee of the National Boating Safety Advisory Council, and the National Association of State Boating Law Administrators are studying the propeller injury prevention issue. The Coast Guard invites interested parties and the public to make brief oral presentations about the propeller injury prevention issue during the following meetings or events:

From 5 to 7 p.m., Monday, April 22, 1996 at the National Water Safety Congress Professional Development Seminar at the Boardwalk Resort in Panama City, FL, (April 23-25, 1996).

From 3 to 5 p.m., Monday April 29, 1996 at the National Boating Safety Advisory Council Meeting at the Parc Fifty-Five Hotel in San Francisco, CA (April 27-29, 1996).

From 8:30 to 10:30 a.m., Wednesday May 1, 1996 at the Northeastern States Boating Law Administrators Conference in the Camden Room at the Samoset Resort in Rockland, ME (April 29-30, 1996).

From 1 to 4 p.m., Monday, May 6, 1996 in Room 2415 of Coast Guard Headquarters in Washington, D.C.

From 10 a.m. to 12 p.m., Sunday, May 19, 1996 at the Southern States Boating Law Administrator Conference at the Royal Sonesta Hotel in New Orleans, LA (May 18-22, 1996).

Those wishing to give an oral presentation should submit their name, address, and organization represented (if any) at least seven days prior to the particular meeting or event, to COMMANDANT (G-NAB-6), room 1505, U.S. Coat [sic] Guard Headquarters, 2100 Second Street SW., Washington, DC 20593-0001, Attn: Mr. Jay Doubt. Individuals wishing to give an oral presentation who fail to notify the Coast Guard within seven days of a particular meeting or event will be allowed to do so if time permits.

Those giving oral presentations are reminded of the necessity to also furnish written comments, if those comments are intended for inclusion in the regulatory docket.

The Coast Guard will consider all relevant comments in determining what action may be necessary to address propeller accidents involving rented propeller-driven vessels.

Dated: March 15, 1996.

Rudy K. Peschel,
Rear Admiral, U.S. Coast Guard, Chief, Office of Navigation Safety and Waterway Services.
[FR Doc. 96-7304 Filed 3-25-96; 8:45 am]
BILLING CODE 4910-14-M

Firm No. 31444

IN THE CIRCUIT COURT OF COOK COUNTY, ILLINOIS
COUNTY DEPARTMENT - LAW DIVISION

REX R. SPRIETSMA, Administrator of the Estate of JEANNE SPRIETSMA, Deceased,	)	
Plaintiff,	)	
v.	)	No.
MERCURY MARINE, a division of BRUNSWICK CORPORATION, a corporation; and EBBTIDE CORPORATION, a corporation,	)	
Defendants.	)	

COMPLAINT AT LAW
Count I
Strict Liability-Wrongful Death-Brunswick

Plaintiff, REX R. SPRIETSMA, Administrator of the Estate of JEANNE SPRIETSMA, deceased, by his attorneys, POWER ROGERS & SMITH, P.C., complaining of defendant, MERCURY MARINE, a division of BRUNSWICK CORPORATION, a corporation (hereinafter "BRUNSWICK"), states:

1. On and before July 10, 1995, Defendant, BRUNSWICK, an entity doing business in Cook County, Illinois, was in the business of designing, manufacturing, distributing and selling outboard motors for boats.

2. Prior to July 10, 1995, Defendant, BRUNSWICK, did design, manufacture, distribute and sell what is commonly known as a Mercury motor being used on an Ebbtide motor boat to Brian R. Geiling and Louise Geiling of Cook County, Illinois.

3. Prior to July 10, 1995, Brian and Louise Geiling traveled with the boat and motor in tow from Cook County, Illinois to Tennessee for a brief vacation.

4. Prior to July 10, 1995, Plaintiff's Decedent, JEANNE SPRIETSMA, traveled with her husband, REX SPRIETSMA, and her son, ROSS SPRIETSMA from their Illinois home to join the Geilings on vacation.

5. On July 10, 1995, Plaintiff's decedent, JEANNE SPRIETSMA, was a passenger in the aforesaid boat near Dale Hollow Lake/Mitchell Creek, Livingston, Tennessee.

6. At the aforesaid time and place, plaintiff's decedent, JEANNE SPRIETSMA, was caused to fall from the boat and was impacted by the propeller blades of the aforesaid boat motor.

7. At the aforesaid time and place and at the time the motor left the hands of Defendant, BRUNSWICK, it was in an

unreasonably dangerous condition in one or more of the following respects:

a. Failed to provide a device to protect plaintiff's decedent from contact with the whirling propeller blades;

b. Failed to supply what is known as a propeller guard with the aforesaid motor;

c. Provided an unreasonably dangerous design in utilizing an unprotected propeller;

d. Failed to utilize alternative feasible designs including, but not limited to, alternative propulsion systems;

e. Exaggerated performance differences between motors with and without propeller guards in an effort to keep such guards from becoming required.

8. As a proximate result of one or more of the aforesaid, Plaintiff's Decedent, JEANNE SPRIETSMA, suffered injuries which resulted in her death on July 10, 1995.

9. Plaintiff, REX R. SPRIETSMA, is the decedent's appointed Administrator and husband of JEANNE SPRIETSMA, and has suffered substantial pecuniary loss as a result of her death.

10. Plaintiff's decedent, JEANNE SPRIETSMA, also left surviving her son, ROSS SPRIETSMA, a minor, who has also suffered substantial pecuniary loss as a result of her death.

WHEREFORE, plaintiff, **REX R. SPRIETSMA, Administrator of the Estate of JEANNE SPRIETSMA, deceased**, demand judgment against defendant, **MERCURY MARINE, a division of BRUNSWICK CORPORATION, a corporation**, for a sum in excess of the jurisdictional limit of the Law Division of the Circuit Court of Cook County.

Count II
Negligence-Wrongful Death-Brunswick

Plaintiff, REX R. SPRIETSMA, Administrator of the Estate of JEANNE SPRIETSMA, deceased, by his attorneys, POWER ROGERS & SMITH, P.C., complaining of defendant, MERCURY MARINE, a division of BRUNSWICK CORPORATION, a corporation (hereinafter "BRUNSWICK"), states:

1. On and before July 10, 1995, Defendant, BRUNSWICK, an entity doing business in Cook County, Illinois, was in the business of designing, manufacturing, distributing and selling outboard motors for boats.

2. Prior to July 10, 1995, Defendant, BRUNSWICK, did design, manufacture, distribute and sell what is commonly known as a Mercury motor being used on an Ebbtide motor boat to Brian R. Geiling and Louise Geiling of Cook County, Illinois.

3. Prior to July 10, 1995, Brian and Louise Geiling traveled with the boat and motor in tow from Cook County, Illinois to Tennessee for a brief vacation.

4. Prior to July 10, 1995, Plaintiff's Decedent, JEANNE SPRIETSMA, traveled with her husband, REX SPRIETSMA, and her son, ROSS SPRIETSMA from their Illinois home to join the Geilings on vacation.

5. On July 10, 1995, Plaintiff's decedent, JEANNE SPRIETSMA, was a passenger in the aforesaid boat near Dale Hollow Lake/Mitchell Creek, Livingston, Tennessee.

6. At the aforesaid time and place, plaintiff's decedent, JEANNE SPRIETSMA, was caused to fall from the boat and was impacted by the propeller blades of the aforesaid boat motor.

7. At the aforesaid time and place and at the time the motor left the hands of Defendant, BRUNSWICK, Defendant was negligent in one or more of the following respects:

a. Failed to provide a device to protect plaintiff's decedent from contact with the whirling propeller blades;

b. Failed to supply what is known as a propeller guard with the aforesaid motor;

c. Provided an unreasonably dangerous design in utilizing an unprotected propeller;

d. Failed to utilize alternative feasible designs including, but not limited to, alternative propulsion systems;

e. Exaggerated performance differences between motors with and without propeller guards in an effort to keep such guards from becoming required.

8. As a proximate result of one or more of the aforesaid, Plaintiff's Decedent, JEANNE SPRIETSMA, suffered injuries which resulted in her death on July 10, 1995.

9. Plaintiff, REX R. SPRIETSMA, is the decedent's appointed Administrator and husband of JEANNE SPRIETSMA, and has suffered substantial pecuniary loss as a result of her death.

10. Plaintiff's decedent, JEANNE SPRIETSMA, also left surviving her son, ROSS SPRIETSMA, a minor, who has also suffered substantial pecuniary loss as a result of her death.

WHEREFORE, plaintiff, **REX R. SPRIETSMA, Administrator of the Estate of JEANNE SPRIETSMA, deceased**, demand judgment against defendant, **MERCURY MARINE, a division of BRUNSWICK CORPORATION, a corporation**, for a sum in excess of the jurisdictional limit of the Law Division of the Circuit Court of Cook County.

Count III
Strict Liability-Survival-Brunswick

Plaintiff, REX R. SPRIETSMA, Administrator of the Estate of JEANNE SPRIETSMA, deceased, by his attorneys, POWER ROGERS & SMITH, P.C., complaining of defendant, MERCURY MARINE, a division of BRUNSWICK CORPORATION, a corporation (hereinafter "BRUNSWICK"), states:

1. On and before July 10, 1995, Defendant, BRUNSWICK, an entity doing business in Cook County, Illinois, was in the business of designing, manufacturing, distributing and selling outboard motors for boats.

2. Prior to July 10, 1995, Defendant, BRUNSWICK, did design, manufacture, distribute and sell what is commonly known as a Mercury motor being used on an Ebbtide motor boat to Brian R. Geiling and Louise Geiling of Cook County, Illinois.

3. Prior to July 10, 1995, Brian and Louise Geiling traveled with the boat and motor in tow from Cook County, Illinois to Tennessee for a brief vacation.

4. Prior to July 10, 1995, Plaintiff's Decedent, JEANNE SPRIETSMA, traveled with her husband, REX SPRIETSMA, and her son, ROSS SPRIETSMA from their Illinois home to join the Geilings on vacation.

5. On July 10, 1995, Plaintiff's decedent, JEANNE SPRIETSMA, was a passenger in the aforesaid boat near Dale Hollow Lake/Mitchell Creek, Livingston, Tennessee.

6. At the aforesaid time and place, plaintiff's decedent, JEANNE SPRIETSMA, was caused to fall from the boat and was impacted by the propeller blades of the aforesaid boat motor.

7. At the aforesaid time and place and at the time the motor left the hands of Defendant, BRUNSWICK, it was in an unreasonably dangerous condition in one or more of the following respects:

a. Failed to provide a device to protect plaintiff's decedent from contact with the whirling propeller blades;

b. Failed to supply what is known as a propeller guard with the aforesaid motor;

c. Provided an unreasonably dangerous design in utilizing an unprotected propeller;

d. Failed to utilize alternative feasible designs including, but not limited to, alternative propulsion systems;

e. Exaggerated performance differences between motors with and without propeller guards in an effort to keep such guards from becoming required.

8. As a proximate result of one or more of the aforesaid, Plaintiff's Decedent, JEANNE SPRIETSMA, suffered injuries including severe pain and suffering and emotional distress which eventually resulted in her death on July 10, 1995, and had she survived, she would have been entitled to bring an action for damages, and such action has survived her.

WHEREFORE, plaintiff, **REX R. SPRIETSMA, Administrator of the Estate of JEANNE SPRIETSMA, deceased**, demand judgment against defendant, **MERCURY MARINE, a division of BRUNSWICK CORPORATION, a corporation**, for a sum in excess of the jurisdictional limit of the Law Division of the Circuit Court of Cook County.

Count IV
Negligence-Survival-Brunswick

Plaintiff, REX R. SPRIETSMA, Administrator of the Estate of JEANNE SPRIETSMA, deceased, by his attorneys, POWER ROGERS & SMITH, P.C., complaining of defendant, MERCURY MARINE, a division of BRUNSWICK CORPORATION, a corporation (hereinafter "BRUNSWICK"), states:

1. On and before July 10, 1995, Defendant, BRUNSWICK, an entity doing business in Cook County, Illinois, was in the business of designing, manufacturing, distributing and selling outboard motors for boats.

2. Prior to July 10, 1995, Defendant, BRUNSWICK, did design, manufacture, distribute and sell what is commonly known as a Mercury motor being used on an Ebbtide motor

boat to Brian R. Geiling and Louise Geiling of Cook County, Illinois.

3. Prior to July 10, 1995, Brian and Louise Geiling traveled with the boat and motor in tow from Cook County, Illinois to Tennessee for a brief vacation.

4. Prior to July 10, 1995, Plaintiff's Decedent, JEANNE SPRIETSMA, traveled with her husband, REX SPRIETSMA, and her son, ROSS SPRIETSMA from their Illinois home to join the Geilings on vacation.

5. On July 10, 1995, Plaintiff's decedent, JEANNE SPRIETSMA, was a passenger in the aforesaid boat near Dale Hollow Lake/Mitchell Creek, Livingston, Tennessee.

6. At the aforesaid time and place, plaintiff's decedent, JEANNE SPRIETSMA, was caused to fall from the boat and was impacted by the propeller blades of the aforesaid boat motor.

7. At the aforesaid time and place and at the time the motor left the hands of Defendant, BRUNSWICK, Defendant was negligent in one or more of the following respects:

a. Failed to provide a device to protect plaintiff's decedent from contact with the whirling propeller blades;

b. Failed to supply what is known as a propeller guard with the aforesaid motor;

c. Provided an unreasonably dangerous design in utilizing an unprotected propeller;

d. Failed to utilize alternative feasible designs including, but not limited to, alternative propulsion systems;

e. Exaggerated performance differences between motors with and without propeller guards in an effort to keep such guards from becoming required.

8. As a proximate result of one or more of the aforesaid, Plaintiff's Decedent, JEANNE SPRIETSMA, suffered injuries including severe pain and suffering and emotional distress which eventually resulted in her death on July 10, 1995, and had she survived, she would have been entitled to bring an action for damages, and such action has survived her.

WHEREFORE, plaintiff, **REX R. SPRIETSMA, Administrator of the Estate of JEANNE SPRIETSMA, deceased**, demand judgment against defendant, **MERCURY MARINE, a division of BRUNSWICK CORPORATION, a corporation**, for a sum in excess of the jurisdictional limit of the Law Division of the Circuit Court of Cook County.

Count V
Strict Liability-Wrongful Death-Ebbtide

Plaintiff, REX R. SPRIETSMA, Administrator of the Estate of JEANNE SPRIETSMA, deceased, by his attorneys, POWER ROGERS & SMITH, P.C., complaining of defendant, EBBTIDE CORPORATION, a corporation, states:

1. On and before July 10, 1995, Defendant, EBBTIDE, was in the business of designing, manufacturing, distributing and selling outboard motor boats.

2. Prior to July 10, 1997, Defendant, EBBTIDE, did design, manufacture, distribute and sell what is commonly known as a EBBTIDE motor boat to Brian R. Geiling and Louise Geiling of Cook County, Illinois.

3. Prior to July 10, 1995, Brian and Louise Geiling traveled with the boat and motor in tow from Cook County, Illinois to Tennessee for a brief vacation.

4. Prior to July 10, 1995, Plaintiff's Decedent, JEANNE SPRIETSMA, traveled with her husband, REX SPRIETSMA, and her son, ROSS SPRIETSMA from their Illinois home to join the Geilings on vacation.

5. On July 10, 1995, Plaintiff's decedent, JEANNE SPRIETSMA, was a passenger in the aforesaid boat near Dale Hollow Lake/Mitchell Creek, Livingston, Tennessee.

6. At the aforesaid time and place, plaintiff's decedent, JEANNE SPRIETSMA, was caused to fall from the boat and was impacted by the propeller blades of the aforesaid boat motor.

7. Prior to July 10, 1995 and at the time the aforesaid boat left the hands of Defendant, EBBTIDE, it was in an unreasonably dangerous condition in one or more of the following respects:

a. Allowed for open bow seating to the very front edge of the bow;

b. Failed to provide sufficient back support in the seating area provided;

c. Failed to provide any substantial form of rail or guard to obstruct a fall out of the boat from the provided seating; and

d. Failed to warn regarding the marginal back support on the seating at the bow front.

8. As a proximate result of one or more of the aforesaid, Plaintiff's Decedent, JEANNE SPRIETSMA, suffered injuries which resulted in her death on July 10, 1995.

9. Plaintiff, REX R. SPRIETSMA, is the decedent's appointed Administrator and husband of JEANNE SPRIETSMA, and has suffered substantial pecuniary loss as a result of her death.

10. Plaintiff's decedent, JEANNE SPRIETSMA, also left surviving her son, ROSS SPRIETSMA, a minor, who has also suffered substantial pecuniary loss as a result of her death.

WHEREFORE, plaintiff, **REX R. SPRIETSMA, Administrator of the Estate of JEANNE SPRIETSMA, deceased**, demand judgment against defendant, **EBBTIDE CORPORATION, a corporation**, for a sum in excess of the jurisdictional limit of the Law Division of the Circuit Court of Cook County.

Count VI
Negligence-Wrongful Death-Ebbtide

Plaintiff, REX R. SPRIETSMA, Administrator of the Estate of JEANNE SPRIETSMA, deceased, by his attorneys, POWER ROGERS & SMITH, P.C., complaining of defendant, EBBTIDE CORPORATION, a corporation, states:

1. On and before July 10, 1995, Defendant, EBBTIDE, was in the business of designing, manufacturing, distributing and selling outboard motor boats.

2. Prior to July 10, 1995, Defendant, EBBTIDE, did design, manufacture, distribute and sell what is commonly known as an EBBTIDE motor boat to Brian R. Geiling and Louise Geiling of Cook County, Illinois.

3. Prior to July 10, 1995, Brian and Louise Geiling traveled with the boat and motor in tow from Cook County, Illinois to Tennessee for a brief vacation.

4. Prior to July 10, 1995, Plaintiff's Decedent, JEANNE SPRIETSMA, traveled with her husband, REX SPRIETSMA, and her son, ROSS SPRIETSMA from their Illinois home to join the Geilings on vacation.

5. On July 10, 1995, Plaintiff's decedent, JEANNE SPRIETSMA, was a passenger in the aforesaid boat near Dale Hollow Lake/Mitchell Creek, Livingston, Tennessee.

6. At the aforesaid time and place, plaintiff's decedent, JEANNE SPRIETSMA, was caused to fall from the boat and

was impacted by the propeller blades of the aforesaid boat motor.

7. Prior to July 10, 1995 and at the time the aforesaid boat left the hands of Defendant, EBBTIDE, Defendant was negligent in one or more of the following respects:

a. Allowed for open bow seating to the very front edge of the bow;

b. Failed to provide sufficient back support in the seating area provided;

c. Failed to provide any substantial form of rail or guard to obstruct a fall out of the boat from the provided seating; and

d. Failed to warn regarding the marginal back support on the seating at the bow front.

8. As a proximate result of one or more of the aforesaid, Plaintiff's Decedent, JEANNE SPRIETSMA, suffered injuries which resulted in her death on July 10, 1995.

9. Plaintiff, REX R. SPRIETSMA, is the decedent's appointed Administrator and husband of JEANNE SPRIETSMA, and has suffered substantial pecuniary loss as a result of her death.

10. Plaintiff's decedent, JEANNE SPRIETSMA, also left surviving her son, ROSS SPRIETSMA, a minor, who has also suffered substantial pecuniary loss as a result of her death.

WHEREFORE, plaintiff, **REX R. SPRIETSMA, Administrator of the Estate of JEANNE SPRIETSMA, deceased**, demand judgment against defendant, **EBBTIDE CORPORATION, a corporation**, for a sum in excess of the jurisdictional limit of the Law Division of the Circuit Court of Cook County.

Count VII
Strict Liability-Survival-Ebbtide

Plaintiff, REX R. SPRIETSMA, Administrator of the Estate of JEANNE SPRIETSMA, deceased, by his attorneys, POWER ROGERS & SMITH, P.C., complaining of defendant, EBBTIDE CORPORATION, a corporation, states:

1. On and before July 10, 1995, Defendant, EBBTIDE was in the business of designing, manufacturing, distributing and selling outboard motor boats.

2. Prior to July 10, 1995, Defendant, EBBTIDE, did design, manufacture, distribute and sell what is commonly known as an EBBTIDE motor boat to Brian R. Geiling and Louise Geiling of Cook County, Illinois.

3. Prior to July 10, 1995, Brian and Louise Geiling traveled with the boat and motor in tow from Cook County, Illinois to Tennessee for a brief vacation.

4. Prior to July 10, 1995, Plaintiff's Decedent, JEANNE SPRIETSMA, traveled with her husband, REX SPRIETSMA, and her son, ROSS SPRIETSMA from their Illinois home to join the Geilings on vacation.

5. On July 10, 1995, Plaintiff's decedent, JEANNE SPRIETSMA, was a passenger in the aforesaid boat near Dale Hollow Lake/Mitchell Creek, Livingston, Tennessee.

6. At the aforesaid time and place, plaintiff's decedent, JEANNE SPRIETSMA, was caused to fall from the boat and was impacted by the propeller blades of the aforesaid boat motor.

7. Prior to July 10, 1995 and at the time the aforesaid boat left the hands of Defendant, EBBTIDE, it was in an unreasonably dangerous condition in one or more of the following respects:

a. Allowed for open bow seating to the very front edge of the bow;

b. Failed to provide sufficient back support in the seating area provided;

c. Failed to provide any substantial form of rail or guard to obstruct a fall out of the boat from the provided seating; and

d. Failed to warn regarding the marginal back support on the seating at the bow front.

8. As a proximate result of one or more of the aforesaid, Plaintiff's Decedent, JEANNE SPRIETSMA, suffered injuries including severe pain and suffering and emotional distress which eventually resulted in her death on July 10, 1995, and

had she survived, she would have been entitled to bring an action for damages, and such action has survived her.

WHEREFORE, plaintiff, **REX R. SPRIETSMA, Administrator of the Estate of JEANNE SPRIETSMA, deceased**, demand judgment against defendant, **EBBTIDE CORPORATION, a corporation**, for a sum in excess of the jurisdictional limit of the Law Division of the Circuit Court of Cook County.

Count VIII
Negligence-Survival-Ebbtide

Plaintiff, REX R. SPRIETSMA, Administrator of the Estate of JEANNE SPRIETSMA, deceased, by his attorneys, POWER ROGERS & SMITH, P.C., complaining of defendant, EBBTIDE CORPORATION, a corporation, states:

1. On and before July 10, 1995, Defendant, EBBTIDE, was in the business of designing, manufacturing, distributing and selling outboard motors for boats.

2. Prior to July 10, 1993, Defendant, EBBTIDE, did design, manufacture, distribute and sell what is commonly known as an EBBTIDE motor boat to Brian R. Geiling and Louise Geiling of Cook County, Illinois.

3. Prior to July 10, 1995, Brian and Louise Geiling traveled with the boat and motor in tow from Cook County, Illinois to Tennessee for a brief vacation.

4. Prior to July 10, 1995, Plaintiff's Decedent, JEANNE SPRIETSMA, traveled with her husband, REX SPRIETSMA, and her son, ROSS SPRIETSMA from their Illinois home to join the Geilings on vacation.

5. On July 10, 1995, Plaintiff's decedent, JEANNE SPRIETSMA, was a passenger in the aforesaid boat near Dale Hollow Lake/Mitchell Creek, Livingston, Tennessee.

6. At the aforesaid time and place, plaintiff's decedent, JEANNE SPRIETSMA, was caused to fall from the boat and was impacted by the propeller blades of the aforesaid boat motor.

7. Prior to July 10, 1995 and at the time the aforesaid boat left the hands of Defendant, EBBTIDE, Defendant was negligent in one or more of the following respects:

a. Allowed for open bow seating to the very front edge of the bow;

b. Failed to provide sufficient back support in the seating area provided;

c. Failed to provide any substantial form of rail or guard to obstruct a fall out of the boat from the provided seating; and

d. Failed to warn regarding the marginal back support on the seating at the bow front.

8. As a proximate result of one or more of the aforesaid, Plaintiff's Decedent, JEANNE SPRIETSMA, suffered injuries including severe pain and suffering and emotional distress which eventually resulted in her death on July 10, 1995, and had she survived, she would have been entitled to bring an action for damages, and such action has survived her.

WHEREFORE, plaintiff, **REX R. SPRIETSMA, Administrator of the Estate of JEANNE SPRIETSMA, deceased**, demand judgment against defendant, **EBBTIDE CORPORATION, a corporation**, for a sum in excess of the jurisdictional limit of the Law Division of the Circuit Court of Cook County.

Count IX
Complaint for Declaratory Relief and to Otherwise Enjoin the Conduct of Various Defendants with Regard to Section 2-623 of the Illinois Code of Civil Procedure

Now comes the Plaintiff, REX SPRIETSMA as Administrator of the Estate of JEANNE SPRIETSMA, deceased, by their attorneys POWER ROGERS & SMITH, P.C., complaining of the defendants, MERCURY MARINE, a division of BRUNSWICK CORPORATION, a corporation, and EBBTIDE CORPORATION, a corporation, pleading hypothetically and in the alternative, and each of them, alleges as follows:

1. The Plaintiffs repeat and reallege and incorporate by reference the preceding paragraphs of the complaint as if fully set forth herein.

2. The circumstances surrounding the Plaintiffs' and Plaintiffs' Decedents injuries give rise to a cognizable cause of action against each Defendant, and all of them, under the law of Illinois.

3. 735 ILCS 5/2-623 requires that a product liability plaintiff file an affidavit with his complaint stating that he has consulted with a qualified expert who must complete a written report after examination of the product or a review of the literature concerning the product. The report (1), in strict liability actions, must identify the specific defect that causes the unreasonable risk of harm and determine that the product was unreasonably dangerous when it left the control of the manufacturer; or (2), in all other products liability cases, must identify a "specific act of omission or other fault" on the part of the defendant and must contain a "determination that the defective condition of the product or other fault was a proximate cause of the plaintiff's harm."

4. A report is required even in a product liability case based on negligence or intentional wrongdoing, rather than strict liability in tort or implied warranty, and even if the defective nature of the product in question is well established.

5. A report is required even if the materials needed to prove that a product is defective can be obtained only by means of discovery – which is not permitted until ***after*** the plaintiff has filed his pleading. Section 2-623 does not in any way compel manufacturers to provide plaintiffs or their attorneys or expert witnesses the testing data relevant to the safety of the product.

6. Under Section 2-623, defendants are not subject to any similar requirement with respect to their pleadings, and defendants incur no comparable penalty or expense under Section 2-623. No certificate of merit requirement applies to defenses raised by defendants, no matter how unsupported they may be.

7. Plaintiffs currently suffer immediate injury due to this requirement, insofar as they must either incur the expense of complying with Section 2-623 or risk dismissal of their action.

8. The courts are left with virtually no discretion in what types of cases require affidavits.

9. Section 2-623 amounts to impermissible special legislation inasmuch as it constitutes a "special or local law when a general law . . . can be made applicable," in violation of Article IV, Section 13 of the Illinois Constitution. Section 2-623 applies only to product liability cases. The Act offers no justification for not requiring similar certificates in all cases requiring expert testimony, or for limiting its application to claims by a ***plaintiff*** rather than ***defenses*** asserted by a ***defendant***.

10. Section 2-623 invades the province of the judiciary and violate the separation of powers in Article II, Section 1 of the Illinois Constitution.

11. Section 2-623 creates an unreasonably burdensome restriction on a plaintiff's right to access to the courts and his right to a certain remedy, as guaranteed by Article I, Section 12 of the Illinois Constitution.

12. Section 2-623 transgresses the right to trial by jury, as guaranteed by Article I, Section 13 of the Illinois Constitution.

13. Section 2-623 is arbitrary and irrational, lacks a rational basis, and violates the due process guaranteed by Article I, Section 2 of the Illinois Constitution.

PRAYER FOR RELIEF

WHEREFORE, the Plaintiffs pray that this Court find as follows:

1. That the Court find 735 ILCS 5/2-623 unconstitutional.

2. That the Court find that the requirement for a certificate of merit in product liability cases is unconstitutional.

3. That the Plaintiff have such other relief as this Court shall deem necessary and proper.

POWER ROGERS & SMITH, P.C.

By /s/
Todd A. Smith

POWER ROGERS & SMITH, P.C.
Attorneys for Plaintiff
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(312) 236-9381
Atty. No. 31444

62 *Federal Register* 22991
(April 28, 1997)

DEPARTMENT OF TRANSPORTATION
Coast Guard
[CGD 95-041]
Propeller Injury Prevention Involving Rented Boats

AGENCY: Coast Guard, DOT.

ACTION: Notice; request for comments.

SUMMARY: The purpose of this notice is to solicit comments on the effectiveness of specific devices and interventions which have been suggested for reducing the number of recreational boating accidents involving rented power boats in which individuals are injured by the propeller. Comments are solicited on the extent to which such devices or interventions may reduce the severity of injuries to individuals involved in propeller-strike accidents.

DATES: Comments must be received by July 28, 1997.

ADDRESSES: You may mail comments to the Executive Secretary, Marine Safety Council (G-LRA/3406) (CGD 95-041), U.S. Coast Guard Headquarters, 2100 Second Street SW., Washington, DC 20593-0001, or deliver them to room 3406 at the same address between 9:30 a.m. and 2 p.m., Monday through Friday, except Federal holidays. The telephone number is 202-267-1477.

The Executive Secretary maintains the public docket. Comments, and documents as indicated in this preamble will become part of this docket and will be available for inspection or copying at room 3406, U.S. Coast Guard Headquarters, between 9:30 a.m. and 2 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Randolph Doubt, Project Manager, Recreational Boating Product Assurance Division, (202) 267-6810.

SUPPLEMENTARY INFORMATION:

Request for Comments

The Coast Guard encourages interested persons to submit written data, views, or arguments. Persons submitting comments should include their names and addresses, identify this docket (CGD 95-041) and the specific section of this document to which each comment applies, and give the reason for each comment. Please submit two copies of all comments and attachments in an unbound format, no larger than 8½ by 11 inches, suitable for copying and electronic filing. Persons wanting acknowledgment of receipt of comments should enclose stamped, self-addressed postcards or envelopes.

Background Information

In a request for comments published in the Federal Register on May 11, 1995, 60 FR 25191, the Coast Guard solicited comments from all segments of the marine community and other interested persons on various aspects of propeller

accident avoidance. In an Advance Notice of Proposed Rulemaking published in the **Federal Register** on March 26, 1996 [59 FR 13123], the Coast Guard solicited information to supplement what had been received in response to the original request for comments in order to determine the appropriate Federal and State roles in reducing propeller-strike incidents; whether governmental intervention is appropriate; and if so, whether it should be directed at the vessels, their manufacturers, their operators, their owners, or the companies leasing such vessels.

Based on comments received, other research efforts and after consultation with the National Boating Safety Advisory Council in November 1996, several potential devices and interventions have been suggested to aid in this endeavor. Persons submitting comments should do as directed under request for comments above, and reply to the following specific suggested devices and interventions. Form letters simply citing anecdotal evidence or stating support for or opposition to regulations, without providing substantive data or arguments do not supply support for regulations.

1. Swimming Ladders

(a) Location: Several serious propeller-strike accidents have occurred when individuals were swimming near the stern of a rented boat and someone on board the boat engaged the engine. Prohibiting the location of boarding ladders or swim platforms adjacent to or over a propeller would reduce the potential for such accidents, especially on larger boats when visibility in the water area about the boat is impaired or restricted. *(b) Interlocks:* Another

suggested device is to require the installation of an interlock to prevent engagement of the propeller(s) when a swimming ladder is in the deployed position. For swimming ladders which are always in the deployed position, a guard preventing use of the ladder would be coupled with an interlock.

2. *Large Warning Notices*

People swimming near the stern of boats with the engine(s) running may not be aware of the danger of being struck by the propeller(s) if the engine(s) are deliberately or accidentally put into gear. The operators of propeller-driven rental boats may lack sufficient boating safety education to conscientiously determine the whereabouts of passengers on board before putting the engine(s) in gear. Requiring the display of large warning notices at the helm and on the transom or engine would warn both vessel operators, passengers and swimmers of the location of the propeller(s) and danger.

3. *Clear Vision Aft*

The location of the helm on rental houseboats and other boats with a large amount of freeboard aft, severely limits the visibility of individuals who may be in the water near the transom area. On rental boats with poor visibility aft, requiring TV monitoring of the area aft of the boat would alert vessel operators to the presence of swimmers in the water near the transom area.

4. *Propeller Shaft Engagement Alarm*

Warning signals which sound when trucks and other commercial vehicles are put in reverse are useful in warning pedestrians. Requiring the installation of a similar alarm or other signal on propeller-driven rental boats when the shaft is engaged in either direction, would alert swimmers to the danger of a rotating propeller.

5. *Kill Switch/Auto Throttle and Neutral Return*

In some boating accidents involving rented houseboats, the helm was left unattended even though the engine was at idle with the propeller engaged, while passengers were either in the water or diving overboard. In other accidents, the helm was vacated due to an accidental fall or ejection overboard which allowed the boat to begin turning in a circle and to run down the former occupant(s). Requiring installation of automatic devices (no preliminary operator action necessary) to stop the engine or return the throttle to idle and the transmission to neutral, if the helm is vacated, might reduce the number of such accidents.

6. *Education*

One of the leading causes of all recreational boating accidents is operator inattention or carelessness. A lack of boating education or boating experience is a frequent cause of accidents involving rental boats. Requiring a safety and operational checkout for rental craft operators and their passengers consisting of education specifically directed to the location and dangers of propellers, might reduce the numbers of accidents in which individuals renting boats are struck by propellers.

Comments and information regarding propeller guards, pump jets (jet drives), alternatives to propeller guards, and any other devices that might reduce the likelihood of an accident or the severity of an injury are also solicited. Technical information received will be forwarded to the Marine Technology Society (MTS) which is currently conducting an availability search for off-the-shelf propeller guards, pump jets, alternatives to guards, prototypes, devices with potential for reducing accidents, and related literature. This will be followed by a period of testing and analysis, under a Coast Guard grant.

The Coast Guard will consider all relevant comments in detering [sic] what action may be necessary to address propeller accidents involving rented propeller-driven vessels.

Dated: April 17, 1997.

T.J. Meyers,
Captain, U.S. Coast Guard, Acting Director, Operations Policy.
[FR Doc. 97-10678 Filed 4-25-97; 8:45 am]
BILLING CODE 4910-14-M

IN THE CIRCUIT COURT OF COOK COUNTY, ILLINOIS
COUNTY DEPARTMENT, LAW DIVISION

REX R. SPRIETSMA, Administrator of the Estate of JEANNE SPRIETSMA, Deceased,	)	
Plaintiffs,	)	
vs.	)	No. 96 L 7812
MERCURY MARINE, a division of BRUNSWICK CORPORATION, a corporation; and EBBTIDE CORPORATION, a corporation,	)	
Defendants,	)	

PLAINTIFF ANSWERS INTERROGATORIES PROPOUNDED BY DEFENDANT EBBTIDE CORPORATION

NOW COMES Plaintiff, REX R. SPRIETSMA, Administrator of the Estate of JEANNE SPRIETSMA, Deceased, and in answer to interrogatories pursuant to Supreme Court Rule 213, propounded by Defendant, EBBTIDE CORPORATION, Plaintiff states as follows:

1. State your full name and all other names, e.g., legal alias, maiden name, by which you have been known, date of birth, social security number, present address, marital status,

i.e., married, single, separated, widowed or divorced, and further indicate the name of your spouse and the address where your spouse, or former spouse, presently resides.

ANSWER No. 1:

Rex Sprietsma, Widow DOB: 8/16/54 SSN: 321-44-0509 8528 Brookridge Road Downers Grove, Illinois 60516	Jeanne Sprietsma, Wife (Deceased) DOB: 6/30/54 SSN: 353-48-4384

2. State the name(s) and present or last known address(es) of all persons known to plaintiff, or plaintiff's agents or attorneys, who have or claim to have knowledge of the occurrence, witnessed the occurrence or were present immediately before or after the occurrence.

17. State the time of the occurrence as accurately as you can, stating the year, month, day, hour and minute.

ANSWER No. 17:

July 10, 1995, Monday at about 3:00 p.m.

18. Describe in detail the product referred to in plaintiff's complaint, and state the product's model and serial numbers.

ANSWER TO No. 18:

1988 Ebbtide 18' ski boat, walk through, open bow (SS # 20E888), equipped with a 1988 115hp Mercury outboard motor (SN #300309).

19. Do you allege or contend that your injury, illness, or damages, was due to or caused in any way by any defect or defective condition present in the product when sold by the Defendant? If not sold by the Defendant, who, then, do you contend sold it?

ANSWER NO. 19: Yes

66 *Federal Register* 63645
(December 10, 2001)

PROPOSED RULES
DEPARTMENT OF TRANSPORTATION
Coast Guard
33 CFR Part 175

[USCG-2001-10163]
RIN 2115-AG18
Federal Requirements For Propeller Injury Avoidance Measures

Monday, December 10, 2001

AGENCY: Coast Guard, DOT.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Coast Guard proposes to require owners of non-planing recreational houseboats with propeller-driven propulsion located aft of the transom to install one of two propulsion unit measures or employ three combined measures. This change responds to recommendations made by the National Boating Safety Advisory Council (NBSAC). The proposed rule would reduce the number of boaters who are seriously or fatally injured when struck by a non-planing recreational houseboat with propeller-driven propulsion.

DATES: Comments and related material must reach the Docket Management Facility on or before March 11, 2002.

ADDRESSES: To make sure that your comments and related material are not entered more than once in the docket, please submit them by only one of the following means:

(1) By mail to the Docket Management Facility (USCG-2001-10163), U.S. Department of Transportation, room PL-401, 400 Seventh Street SW., Washington, DC 20590-0001.

(2) By delivery to room PL-401 on the Plaza level of the Nassif Building, 400 Seventh Street SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The telephone number is 202-366-9329.

(3) By fax to the Docket Management Facility at 202-493-2251.

(4) Electronically through the Internet Site for the Docket Management System at http://dms.dot.gov. The Docket Management Facility maintains the public docket for this rulemaking. Comments and material received from the public, as well as documents mentioned in this preamble as being available in the docket, will become part of this docket and will be available for inspection or copying at room PL-401 on the Plaza level of the Nassif Building, 400 Seventh Street SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. You may also find this docket on the Internet at http:// dms.dot.gov. You may obtain a copy of this proposed rule by calling the U. S. Coast Guard Infoline at 1-800-368-5647, or read it on the Internet, at the web site for the Office of Boating Safety, at http://www.uscgboating.org or at http://dms.dot.gov.

FOR FURTHER INFORMATION CONTACT: If you have questions on this proposed rule, contact Carlton Perry, Project Manager, Office of Boating Safety, U.S. Coast Guard, by telephone at 202-267-0979 or by e-mail at cperry@comdt.uscg.mil. If you have questions on viewing or submitting material to the docket, call Dorothy Beard, Chief, Dockets, Department of Transportation, telephone 202-366-5149.

SUPPLEMENTARY INFORMATION:

Request for Comments

We encourage you to participate in this rulemaking by submitting comments and related material. If you do so, please include your name and address, identify the docket number for this rulemaking (USCG-2001-10163), indicate the specific section of this document to which each comment applies, and give the reason for each comment. You may submit your comments and material by mail, hand delivery, fax, or electronic means to the Docket Management Facility at the address under ADDRESSES; but please submit your comments and material by only one means. If you submit them by mail or hand delivery, submit them in an unbound format, no larger than 8½ by 11 inches, suitable for copying and electronic filing. If you submit them by mail and want to know they reached the Facility, please enclose a stamped, self- addressed postcard or envelope. We will consider all comments and material received during the comment period. We may change this proposed rule in view of them.

Public Meeting

We do not plan to hold a public meeting but you may submit a request for one to the Docket Management Facility at the address under ADDRESSES explaining why one would be beneficial. If we determine that a public meeting would aid this rulemaking, we will hold one at a time and place announced by a later notice in the Federal Register.

Background and Purpose

Regulatory History. The Coast Guard received requests from the National Boating Safety Advisory Council (NBSAC), propeller strike prevention organizations, and the general public to require installation of propeller guards on recreational houseboats and other displacement (non-planing) vessels, including those leased by livery operations. While accident data currently available to us does not show a high number of reported fatalities from propeller strikes annually, the number of responses to the 1995 and 1997 notices of request for comments (discussed below) indicate a great deal of public interest in whether and how the Federal government should act to prevent propeller-strike accidents. After consideration of public input and consultation with the National Boating Safety Advisory Council (NBSAC), we determined that we should promulgate regulations for owners of houseboats as non-planing recreational vessels with propeller-driven propulsion aft of the transom.

Initial Notice of Request for Comments. To gather information from the recreational boating public and industry, we published a notice of request for comments in the Federal Register in May 1995 (60 FR 25191). We asked the recreational

boating public to comment on: (1) The economic and other impacts of establishing a requirement for propeller guards on recreational houseboats and other displacement (non-planing) vessels; (2) suggestions on alternatives to propeller guards that should also be considered; (3) recommendations on the applicability of regulations; and (4) concerns of the livery and charter industries.

We received over 100 comments during the 60-day comment period. Various parties, including the National Association of State Boating Law Administrators (NASBLA) requested an extension of the comment period. To accommodate this request, we published a notice to reopen the comment period for an additional 120-days in August 1995 (60 FR 40545). We received 1,994 comments to this notice, including more than 1,800 form letters that supported a requirement to use propeller guard technology or jet pump propulsion on rental houseboats. An additional 69 comments also supported developing such a requirement. Fifty-seven comments objected to such a requirement. The information received was voluminous, but too general to help us develop a regulation.

Advance Notice of Proposed Rulemaking. We published an advance notice of proposed rulemaking (ANPRM) in March 1996 (61 FR 13123) that asked questions to gather current and specific information about the injuries involving propeller strikes and rented boats. We also announced a series of meetings across the country to enable the public to express their views. Some of the questions specifically sought out the following information: the appropriate Federal and State roles in reducing propeller strike incidents; whether government intervention is appropriate; and if so, whether it should be directed at the vessels, their

manufacturers, their operators, their owners, or the companies leasing such vessels.

Second Notice of Request for Comments. After reviewing available research and the comments from the public, and consulting with NBSAC at its November 1996 meeting, we published another notice of request for comments in April 1997 (62 FR 22991) and provided a 90-day comment period. We solicited comments on the effectiveness of specific devices and interventions that may reduce the number of recreational boating accidents involving rented powerboats in which individuals are injured by the propeller. We also asked for information about other devices or interventions (propeller injury avoidance measures) that may reduce the severity of injuries to individuals involved in propeller-strike accidents.

The devices or interventions we asked about included: (1) Swimming ladder locations and interlocks; (2) large warning notices to make the operators, passengers and swimmers more aware of the dangers; (3) propeller location wands; (4) clear vision aft to alert operators to the presence of swimmers near the propeller; (5) propeller shaft engagement alarms to alert passengers and swimmers of a rotating propeller; (6) conversion of a standard inboard, outboard, or inboard/outboard engine with a jet pump propulsion engine; (7) ignition cut-off/auto throttle and neutral returns to stop the propeller when the helm is vacated or unattended; and (8) education specifically directed to the location and dangers of propellers. We also solicited comments on propeller guards, and any other devices that might reduce the occurrence or severity of injuries due to propeller strikes. Based on requests from the public, we published a notice that extended

the comment period an additional 210 days in August 1997 (62 FR 44507).

Summary of Comments. In response to the ANPRM and the notices, we received 2,027 comments, more than 1,800 of which were form letters and none of which contained information sufficient to support proposing requirements for manufacturers of new recreational boats, nor did they help us determine the estimated burdens and costs to boat manufacturers. Of the total comments received, 95% were in favor of initiating a Federal regulation.

NBSAC Consultation. At the April 30, 2000, NBSAC Subcommittee meeting, we presented the results of our research on accident report statistics: vessels most frequently involved with injuries are open recreational motorboats in the category "16 feet to less than 26 feet in length." We announced our intention to initiate a regulatory project that would require owners of this category of recreational vessels to attach pre-printed warning labels at strategic locations on their vessels. We would also propose requirements for owners to attach a propeller guard on a smaller number of rental non-planing houseboats. The Subcommittee report included the Coast Guard rulemaking project description. The Subcommittee presented its report to the full Council at the May 1, 2000, meeting and the Council accepted the Subcommittee's report without amendment.

At the October 2000 NBSAC Subcommittee meeting, the Subcommittee reviewed the preferred alternative from its April 2000 meeting and recommended that we propose, instead, an expanded list of interventions for vessels in the category "16 feet to less than 26 feet in length." As a result, we developed and

presented a number of propeller injury avoidance measures to NBSAC for their review. Again, the full Council accepted the Subcommittee report.

At the April 2001 NBSAC Subcommittee meeting, we presented the expanded list of alternatives from which owners of the affected vessels can choose for their vessels. After discussing the alternatives and their cost, the Council recommended that the Coast Guard, instead, develop four specific regulations:

(1) Require owners of all propeller driven vessels 12 feet in length and longer with propellers aft of the transom to display propeller warning labels and to employ an emergency cut-off switch, where installed;

(2) Require manufacturers and importers of new planing vessels 12 feet to 26 feet in length with propellers aft of the transom to select and install one of several factory installed propeller injury avoidance methods;

(3) Require manufacturers and importers of new non-planing vessels 12 feet in length and longer with propellers aft of the transom to select and install one of several factory installed propeller injury avoidance methods; and

(4) Require owners of all non-planing rental boats with propellers aft of the transom to install either a jet propulsion system or a propeller guard or all of several propeller injury avoidance measures.

This regulatory project would focus on implementing the fourth NBSAC recommendation. We will address the other NBSAC recommendations in subsequent regulatory projects. Due to the extensive broadening of the initial regulatory project, we are withdrawing the initial regulatory project, as published in the Notices section of this document, and initiating the first of a series of separate regulatory projects in response to recent NBSAC recommendations. We have placed the public docket for the initial regulatory project (CGD 95-041) into a new public docket (USCG-2001-10299) at the Docket Management System (DMS) at the above address under ADDRESSES for public viewing.

Use of the propeller injury avoidance measures described in this proposed rule would, in most cases, prevent direct contact of the propeller blades with persons in the water and minimize serious and fatal injuries due to propeller strikes.

Discussion of Proposed Rule

1. Section 175.03 of Title 33 Code of Federal Regulations would be amended to include definitions of the following terms used in this subpart: clear vision aft, houseboat, ignition cut-off switch, non-planing vessel, planing vessel, and swim ladder interlock. We would specifically like public comment on these terms and definitions.

2. Part 175--Equipment Requirements would be revised by adding a new subpart E--Propeller Injury Avoidance Measures.

3. New section 175.301, Applicability, would describe the category of recreational vessels that are subject to the new

requirements: Non-planing recreational houseboats with propeller-driven propulsion located aft of the transom. We would specifically like public comment on definitions for terms used in this section.

4. New sections 175.310 and 175.315 would describe the specific safety measures required by this proposed rule. Section 175.310 instructs owners and operators of vessels for rent; section 175.315 instructs owners and operators of vessels not for rent.

Owner and Operator Requirements for Vessels for Rent

Under proposed section 175.310, owners of recreational, non-planing houseboats for rent with propeller-driven propulsion located aft of the transom must equip their vessels with either a propeller guard, or a combination of three propeller injury avoidance measures: A swim ladder interlock, an aft visibility device, and an emergency ignition cut-off switch. Operators of vessels for rent must use either a propeller guard or all three propeller injury avoidance measures listed above.

Owner and Operator Requirements for Vessels Not for Rent

Under proposed section 175.315, owners of recreational, non-planing houseboats not for rent with propeller-driven propulsion located aft of the transom must equip their vessels with either a propeller guard, or both of the following propeller injury avoidance measures: a swim ladder interlock and an aft visibility device.

Operators of vessels not for rent must use either a propeller guard, or all of the following propeller injury avoidance measures: a swim ladder interlock, an aft visibility device, and an emergency ignition cut-off switch (if factory installed).

We are not requiring owners of vessels not for rent to install an emergency ignition cut-off switch because it may be cost-prohibitive. However, if a vessel has an emergency ignition cut-off switch that was installed at the factory, vessel operators must use it. If a vessel does not have a factory-installed emergency ignition cut-off switch, we encourage, but do not require the owner to get one.

We would specifically like public comment on the availability of, and experience with, the safety devices described in this proposed rule. We would also like feedback about your experience operating a vessel with a propeller guard; fitting a propeller guard to a vessel drive unit; or concerns about propeller guard clogging, if any.

5. Phase-in period for installing safety measures. To minimize the immediate economic burden on owners of both rental and non-rental vessels and to provide a reasonable time period for compliance, we would provide a phase-in period for implementing the safety measures. Owners of vessels not for rent, lease, or charter would have 2 years from the date that a final rule is published to install the prescribed safety measures. Owners of vessels for rent, lease, or charter would have an additional year (3 years) from the date that a final rule is published to install the prescribed safety measures. We are allowing owners of vessels for rent an extra year because, in

many cases, they have multiple vessels on which they must install the safety measures.

Regulatory Evaluation

This proposed rule is not a "significant regulatory action" under section 3(f) of Executive Order 12866, Regulatory Planning and Review, and does not require an assessment of potential costs and benefits under section 6(a)(3) of that Order. The Office of Management and Budget (OMB) has not reviewed this rule under that Order. It is not "significant" under the regulatory policies and procedures of the Department of Transportation (DOT) (44 FR 11040, February 26, 1979).

A draft Regulatory Evaluation under paragraph 10e of the regulatory policies and procedures of DOT follows:

Costs of Proposed Rule

We estimate that this rule would impose a $12 to $30 million economic cost on owners of approximately 100,000 non-planing houseboats. Approximately 5,000 of these vessels are rented, leased or chartered.

Owners who lease, rent, or charter non-planing recreational houseboats would have to install either a propeller guard or three combined measures. The three measures include a swim ladder interlock ($100 plus installation), a clear visibility aft device ($20, self-installed), and an ignition cut-off switch ($40, plus installation). Owners of non-planing non-rental recreational houseboats would not be required to install an ignition cut-off switch. Therefore, in our calculation of the total minimum cost

to this group of owners, we have only included the cost of the other two measures.

Owners could convert their engine into a jet pump at a cost of $2500 and be exempt from this rule. Because we do not expect many houseboat owners to do this, the maximum cost is based on installation of a propeller guard, which we estimate to be $300 (self-installed).

To minimize the immediate economic impact of this rule, owners of non-rental houseboats are provided two years to comply; rental and livery businesses are granted an additional year (three years) to comply.

We estimate that costs to the government would be minimal. The Coast Guard would have to expand its Boarding Officer personnel training to include checking for installation of the injury avoidance measures, a propeller guard, or a jet pump engine in a safe and determinative manner, during currently required field boardings of recreational vessels for safety equipment checks.

Benefits of Proposed Rule

This proposed rule is appropriate because the Boating Accident Reporting Database (BARD) shows that the number of injuries and fatalities reported during calendar years 1990 through 1999 occurred at a chronic rate. BARD data for the same period revealed a total of 18 injuries and 2 fatalities involving non-planing recreational houseboats. The number of injuries to be prevented by this rule may be greatly understated

since many boaters are unaware of the requirement to report accidents.

The benefits of avoiding future propeller strike injuries and fatalities are based on the eighteen propeller strike injuries and two fatalities caused by non-planing houseboats from 1990 through 1999. If we anticipate 100% compliance with this regulation and assume the eighteen injuries to be severe, then the total monetary benefits of injuries avoided are $9.1 million. The total monetary benefits of injuries avoided are based on the value society is willing to pay to avert a severe injury, which the Office of the Secretary of Transportation has calculated to be $506,300.

In addition, two propeller-related fatalities were reported in the accident database from 1990 through 1999. If compliance with the regulation prevents these fatalities, then the total monetary benefits of fatalities avoided, based on the value society is willing to pay to avert a fatality, are $5.4 million ($2,700,000 x 2 deaths). The total monetary benefit to society for avoiding all of the injuries and fatalities involving non-planing houseboats are $14.5 million ($9.1 for injuries and $5.4 for fatalities) over a 10-year period. This exceeds our lowest cost estimates of $12 million. If at least twelve fatalities are averted due to the implementation of the regulation, the benefits will exceed our highest cost estimates of $30 million for this rule.

Vessel owners may incur additional benefits from lower insurance premiums as a result of their use of improved safety measures.

The Coast Guard expects that this rule would reduce the number of people who are killed or injured due to a propeller strike involving non-planing recreational houseboats.

Small Entities

Under the Regulatory Flexibility Act (5 U.S.C. 601-612), we have considered whether this proposed rule would have a significant economic impact on a substantial number of small entities. The term "small entities" comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000.

Individuals, not small entities, own the majority of non-planing recreational houseboats affected by this rule; however, under the Regulatory Flexibility Act, the Coast Guard must determine the impact on small entities. The Coast Guard estimates that there are 300 houseboat rental facilities that must install the propeller injury avoidance measures required by this rule. In order to minimize the burden on these small entities, the Coast Guard would provide them 3 years (an additional year beyond the 2 years provided to owners of non-rental houseboats) to comply with this rule.

Therefore, the Coast Guard certifies under 5 U.S.C. 605(b) that this proposed rule would not have a significant economic impact on a substantial number of small entities. If you think that your business, organization, or governmental jurisdiction qualifies as a small entity and that this rule would have a significant economic effect on it, please submit a comment to the Docket Management Facility at the address under ADDRESSES.

In your comment, explain why you think it qualifies and how and to what degree this rule would affect it.

Assistance for Small Entities

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Public Law 104-121), we want to assist small entities in understanding this proposed rule so that they can better evaluate its effect on them and participate in the rulemaking. If the rule would affect your small business, organization, or governmental jurisdiction and you have questions concerning its provisions or options for compliance, please contact Carlton Perry, Project Manager, Office of Boating Safety, by telephone at 202-267-0979, or by e-mail at cperry@comdt.uscg.mil.

Small businesses may send comments on the actions of Federal employees who enforce, or otherwise determine compliance with, Federal regulations to the Small Business and Agriculture Regulatory Enforcement Ombudsman and the Regional Small Business Regulatory Fairness Boards. The Ombudsman evaluates these actions annually and rates each agency's responsiveness to small business. If you wish to comment on actions by employees of the Coast Guard, call 1-888-REG-FAIR (1-888-734-3247).

Collection of Information

This proposed rule would call for no new collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501-3520).

Federalism

A rule has implications for Federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on State or local governments and would either preempt State law or impose a substantial direct cost of compliance on them

We have analyzed this proposed rule under that Order and have determined that it does not have implications for federalism. Under this proposal, the Coast Guard establishment of a performance standard or equipment installation requirement would not conflict with any existing State statute. The Coast Guard routinely consults with the National Association of State Boating Law Administrators (NASBLA) and will continue to do so on this specific regulatory project.

Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531-1538) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the aggregate, or by the private sector of $100,000,000 or more in any one year. Though this proposed rule would not result in such an expenditure, we do discuss the effects of this rule elsewhere in this preamble.

Taking of Private Property

This proposed rule would not effect a taking of private property or otherwise have taking implications under Executive

Order 12630, Governmental Actions and Interfe ıce with Constitutionally Protected Property Rights.

Civil Justice Reform

This proposed rule meets applicable standards in sections 3(a) and 3(b)(2) of Executive Order 12988, Civil Justice Reform, to minimize litigation, eliminate ambiguity, and reduce burden.

Protection of Children

We have analyzed this proposed rule under Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks. This rule is not an economically significant rule and does not concern an environmental risk to health or risk to safety that may disproportionately affect children.

Indian Tribal Governments

This proposed rule does not have tribal implications under Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, because it would not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.

To help the Coast Guard establish regular and meaningful consultation and collaboration with Indian and Alaskan Native tribes, we published a notice in the Federal Register (66 FR 36361, July 11, 2001) requesting comments on how to best carry

out the Order. We invite your comments on how this proposed rule might impact tribal governments, even if that impact may not constitute a "tribal implication" under the Order.

Energy Effects

We have analyzed this proposed rule under Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use. We have determined that it is not a "significant energy action" under that order because it is not a "significant regulatory action" under Executive Order 12866 and is not likely to have a significant adverse effect on the supply, distribution, or use of energy. It has not been designated by the Administrator of the Office of Information and Regulatory Affairs as a significant energy action. Therefore, it does not require a Statement of Energy Effects under Executive Order 13211.

Environment

We have considered the environmental impact of this proposed rule and concluded that, under figure 2-1, paragraph (34)(d), of Commandant Instruction M16475.1D, this proposed rule is categorically excluded from further environmental documentation. The proposed rule requires owners of non-planing recreational houseboats with propeller-driven propulsion located aft of the transom to install one of two propulsion unit measures or three combined measures. The propeller guard devices do not create sufficient drag through the water for these slow moving non-planing vessels to result in an increase of consumption of fossil fuels or increase air pollution due to increased exhaust. A "Categorical Exclusion

Determination" is available in the docket where indicated under ADDRESSES.

List of Subjects in 33 CFR Part 175 Marine Safety.

For the reasons discussed in the preamble, the Coast Guard proposes to amend 33 CFR part 175 as follows:

PART 175 – EQUIPMENT REQUIREMENTS

1. The authority citation for part 175 continues to read as follows:

Authority: 46 U.S.C. 4302; 49 CFR 1.46.

2. Amend § 175.3 by adding the following undesignated definitions in alphabetical order to the rest of the section, to read as follows:

§ 175.3 Definitions.

* * * * *

Clear visibility aft device means a device, such as a video camera and monitor or a mirror, that allows the operator to see aft of the vessel from the engine throttle control station to be aware of the presence of a swimmer near a propeller.

Houseboat means a motorized vessel designed primarily with accommodation spaces with little or no foredeck or cockpit, with low freeboard and with a low length to beam ratio.

Ignition cut-off switch means a device that interrupts the engine ignition to stop the engine when the operator moves away from the engine throttle control station.

* * * * *

Non-planing vessel means a vessel with a hull that is designed to ride through the water at any speed.

* * * * *

Planing vessel means a vessel with a hull that is designed to ride on top of the water beyond a minimum speed.

* * * * *

Swim ladder interlock means a device that interrupts the engine ignition to stop the engine when a swim ladder is moved into position near the propeller.

* * * * *

3. Amend part 175 by adding a new subpart E – Propeller Injury Avoidance Measures as follows:

Subpart E – Propeller Injury Avoidance Measures § 175.301 Applicability.

§ 175.310 Propeller safety measures for rental houseboats.

§ 175.315 Propeller safety measures for non-rental houseboats.

§ 175.301 Applicability.

(a) Sections 175.310 and 175.315 apply to recreational vessels described in § 175.1, which:

(1) Are monohull houseboats;

(2) Use a propulsion drive unit with an exposed propeller located aft of the transom; and

(3) Are designed to be operated in a non-planing manner.

(b) Sections 175.310 and 175.315 do not apply to multi-hull vessels or planing vessels.

§ 175.310 Propeller safety measures for rental houseboats.

(a) If you own a recreational non-planing houseboat and provide it for rent, charter or lease, you must either–

(1) Cover each exposed propeller located aft of the transom with a propeller guard attached in a secure manner; or;

(2) Do all of the following–

(i) Install and maintain an interlock device for each swim ladder;

(ii) Install and maintain a clear visibility aft device that provides a clear view, aft of the vessel from the engine throttle control area; and

(iii) Install and maintain an emergency ignition cut-off switch.

(b) If you operate a rented, chartered, or leased vessel that has an exposed propeller located aft of the transom, you must –

(1) Use all swim ladder interlock devices;

(2) Use a clear visibility aft device that provides a clear view, aft of the vessel from the engine throttle control station; and

(3) Use the emergency ignition cut-off switch.

§ 175.315 Propeller safety measures for non-rental houseboats.

(a) If you own a recreational non-planing houseboat and do not provide it for rent, charter or lease, you must either –

(1) Cover each exposed propeller located aft of the transom with a propeller guard attached in a secure manner; or

(2) Do both of the following –

(i) Install and maintain an interlock device for each swim ladder; and

(ii) Install and maintain a clear visibility aft device that provides a clear view, aft of the vessel from the engine throttle control station.

(b) If you operate a vessel with an exposed propeller located aft of the transom, you must –

(1) Use all swim ladder interlock devices;

(2) Use a clear visibility aft device that provides a clear view, aft of the vessel from the engine throttle control area; and

(3) Use the emergency ignition cut-off switch (if factory installed).

Dated: October 15, 2001.

Terry M. Cross,
Rear Admiral, U.S. Coast Guard, Assistant Commandant for Operations.

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